The Marine Mammal Commission Compendium of Selected Treaties, International Agreements, and Other Relevant Documents on Marine Resources, Wildlife, and the Environment

Volume I

Pages 1–1120

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Washington, D.C.

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Preface

In the summer of 1991, I asked several interns at the Marine Mammal Commission to gather fisheries agreements of the past 20 years as background material for a review. It quickly became clear that copies of all the agreements were not readily available.

To learn if others were having similar difficulty obtaining documents, I consulted with people in the National Marine Fisheries Service and other offices of the National Oceanic and Atmospheric Administration; the Department of the Interior's Fish and Wildlife Service and National Park Service; the Department of State's Bureau of Oceans and International Environmental and Scientific Affairs and Office of the Legal Adviser; graduate schools of oceanography, marine policy, and environmental studies; non-governmental organizations; law firms; and private industry. I also sought comments from staff members of various Congressional committees, particularly the Senate Committee on Commerce, Science and Transportation, and the House Committee on Merchant Marine and Fisheries' Subcommittee on Fisheries and Wildlife Conservation and the Environment, and from people at the Congressional Research Service. Internationally, colleagues in specialized agencies of the United Nations, such as the Intergovernmental Oceanographic Commission of the United Nations Educational, Scientific and Cultural Organization and the United Nations Food and Agriculture Organization, and persons on various international fisheries commissions gave their views as well. Without exception, everyone had had problems accessing basic documents and had spent considerable time and money in doing so.

Many individuals in the United States were using as their primary reference the 1977 compendium compiled by the Congressional Research Service for the Senate Committee on Commerce, Science and Transportation. They generally found materials produced after 1976 to be scattered, difficult to find, and usually accessible only with effort.

Internationally, the situation was somewhat better. The United Nations Environment Programme had published *Selected Multilateral Treaties in the Field of the Environment* in 1983 (Volume 1) and 1991 (Volume 2), two compendia that focused on multilateral environmental agreements in general rather than on marine issues. Neither volume considered material relevant to bilateral U.S. agreements. Furthermore, certain protocols, amendments, and schedule changes to conventions were not included.

In light of these many problems, the Marine Mammal Commission's three Commissioners, John E. Reynolds, III, Chairman, Paul K. Dayton, and Jack W. Lentfer, as well as many people in the academic and governmental communities strongly supported the idea of a compendium focused on marine and environmental issues of import to the United States. The Congressional committees already cited, along with the Senate Appropriations Committee's Subcommittee on Commerce, Justice, State and Judiciary and the House Appropriations Committee's Subcommittee on Commerce, Justice, State, the Judiciary and Related Agencies, encouraged

the project because its publication would yield savings by making repeated, extensive searches for information unnecessary.

A number of colleagues in the legal, academic, environmental, industrial, and governmental communities graciously agreed to guide the *Compendium*'s development from its earliest stages. As members of the Advisory Board, they provided invaluable advice on content, format, and structure. Their names appear inside the front cover.

Content and Structure of the Compendium

The Marine Mammal Commission Compendium of Selected Treaties, International Agreements, and Other Relevant Documents on Marine Resources, Wildlife, and the Environment is a reference document; it is not intended to be an analytical work. It contains the complete texts of more than 400 international agreements, including more than 100 multilateral treaties, agreements, accords, and memoranda of understanding. It contains more than 90 bilateral treaties, agreements, and memoranda of understanding involving the United States and 31 other nations. Also included are numerous amendments and protocols to these documents, several non-binding international documents, and a number of agreements that are significant but to which the United States is not party. Most of the bilateral agreements and non-binding documents are available here for the first time in a collection of international law. The *Compendium* is current through 31 December 1992.

The *Compendium* is divided into two sections comprising multilateral and bilateral documents. Within the multilateral section, documents are arranged by the following subjects: Antarctica, Environment and Natural Resources, Fisheries, Marine Mammals, Marine Pollution, Marine Science and Exploration, and Other. Within the bilateral section, documents are arranged in alphabetical order by nation. Subheadings for the entries under each nation correspond to the subject headings given above.

Accompanying the text of each document is useful background information. For all multilateral entries, the *Compendium* includes primary source citations, the city in which the document was concluded, the date it was concluded, and, where applicable, the date it entered into force. For all treaties and international agreements, the depositary nation or organization is also provided.

Agreements in the *Compendium* that are noted as not being in force for the United States fall into three categories. They include agreements not yet signed by the United States; those for which the United States has not completed other steps necessary to become a party; and those agreements which by their terms limit participation to particular states or regions or establish other criteria that exclude the United States from becoming a party.

A number of agreements involving the former Soviet Union were in force at the time of the U.S.S.R.'s dissolution. With respect to the United States, these agreements continue in force fully and equally as between the United States and each of the twelve successor republics unless continuance is determined by either party to be incompatible with the purposes of the agreement or otherwise inappropriate.

Sources of Documents in the Compendium

Many documents in the *Compendium* were obtained from the following U.S. Department of State publications: *Treaties and Other International Agreements of the United States of America 1776–1949* (commonly known by the last name of the series' editor, Charles I. Bevans); *United States Treaties and Other International Agreements* (which includes treaties and agreements that entered into force from 1950 to the present); the United States *Treaty Series* (a pamphlet series including agreements through 1945, which was subsequently compiled in the Bevans volumes); and the *United States Treaties and Other International Acts Series* (successor to the *Treaty Series,* this pamphlet series is compiled and published in annual volumes of *United States Treaties and Other International Agreements*).

Treaties and international agreements printed for the use of the U.S. Congress are also contained in the *Compendium.* These sources include Senate Treaty Documents, Senate Executive prints, and House Documents.

Sources of treaties and international agreements to which the United States is not party include the *United Nations Treaty Series,* published by the United Nations; the *European Treaty Series,* published by the European Community; and the *League of Nations Treaty Series,* published by the League of Nations from 1920 to 1946. These are compilation volumes similar to *United States Treaties and Other International Agreements.*

The Marine Mammal Commission was granted permission by three publishers to use copyrighted or otherwise legally controlled materials. The sources are "Command Papers," published by Her Britannic Majesty's Stationery Office of the Government of the United Kingdom, Norwich, U.K.; the journal *International Legal Materials,* published by the American Society of International Law, Washington, D.C.; and the journal *Environmental Policy and Law,* published by Elsevier Science Publishers, Amsterdam, The Netherlands.

Unpublished documents were acquired from the U.S. Department of State's Office of the Assistant Legal Adviser for Treaty Affairs; other offices within the Department of State; the National Marine Fisheries Service; the United Nations Environment Programme; the Treaty Section of the United Nations Legal Department; the International Whaling Commission; the International Maritime Organization; the Inter-American Tropical Tuna Commission; the Intergovernmental Oceanographic Commission; the Secretariat for the Convention on the Conservation of Migratory Species of Wild Animals; the Secretariat for the Convention on International Trade in Endangered Species of Wild Fauna and Flora; the South Pacific Forum Fisheries Agency; the Organization of African Unity; and the Governments of Argentina, Australia, Belgium, Brazil, Finland, France, Germany, and Iceland.

Parties to treaties, international agreements, and other documents contained in the *Compendium* are not given. This is because the number of parties may change, sometimes substantially, over short periods of time. Thus any list of nations party to the agreements contained in the *Compendium* could become outdated, misleading, and of limited value for research purposes soon after publication. The U.S. Department of State strongly suggested this as the best approach.

Lists of the countries party to a treaty or agreement can be obtained from the U.S. Department of State's annual publication *Treaties in Force*; the *Register of International*

Treaties and Other Agreements in the Field of the Environment, compiled, published, and biennially updated by the United Nations Environment Programme; and the depositary governments or organizations responsible for maintaining a record of states party to treaties and international agreements. However, the only fully reliable sources are the depositary governments or organizations listed in the *Compendium* as part of the prefatory information for each agreement.

Methods and Controls

From the outset, quality control has been stressed. The size and complexity of the book mandated meticulous care and attention to detail at all stages if quality were to be realized. Basic guidance was provided by the Advisory Board in its reviews of content, structure, and format. Every document contained in the *Compendium,* if other than a photocopy of the signed original, was carefully reviewed for completeness, legibility by scanner, and consistency with other versions before being scanned and typeset. Further review was undertaken by the U.S. Department of State to ensure accuracy and completeness of ancillary information and to ensure that relevant documents had not been overlooked. The front matter for all agreements was reviewed by the Advisory Board. During scanning and typesetting, every document was subject to strict quality control measures, including four separate proofreadings. A final review of the entire *Compendium* was done before it went to press.

Acknowledgments

I am grateful to Messrs. Dayton, Lentfer, and Reynolds, the Marine Mammal Commission's three Commissioners. They were generous with their time as reviewers and always strong in their support of the project.

Special thanks are due Richard L. Wallace, who directed the project. His commitment, competence, common sense, enthusiasm, and ability to work with people made him a superb project manager. At the outset, Mr. Wallace, Brooks S. Moriarty, and Debra L. Nail were the three interns who gathered the original materials on fisheries agreements. Shortly thereafter, Mr. Wallace joined the Marine Mammal Commission staff, and I asked him to assume full responsibility for compiling the *Compendium.* With help from Brooks Moriarty in the first several months, he worked diligently for the next two years to complete the *Compendium.*

Thanks are due the U.S. Department of State's Bureau of Oceans and International Environmental and Scientific Affairs for its generous support of the *Compendium,* the National Marine Fisheries Service for its significant contributions, and the U.S. Fish and Wildlife Service for its assistance.

The Advisory Board provided guidance from the project's earliest stages. Its careful criticism and advice made it possible to undertake such an ambitious project with some promise of success. The Board's advice on content, format, and structure described the parameters within which the document was developed, and the Board's periodic re-examinations of work in progress helped ensure completeness, an organized presentation, and accuracy.

The cost of the *Compendium,* while significant, is but a fraction of what this reference will save by eliminating the need for repetitive efforts at research and document recovery. The House and Senate Appropriations Subcommittees previously mentioned recognized the potential savings. Their generous encouragement and support made the work possible.

Several advisors were particularly helpful. E.U. Curtis Bohlen, Assistant Secretary of State for Oceans and International Environmental and Scientific Affairs, provided considerable assistance. Mary M. Brandt, of the Department of State's Office of the Assistant Legal Adviser for Treaty Affairs, was a willing and much-valued participant in the selection, search for, and review of documents. Melinda Chandler, of the Office of the Legal Adviser for Oceans and International Environmental and Scientific Affairs, and Lee A. Kimball also devoted substantial time and gave valuable advice throughout the project. Their careful reviews and recommendations helped ensure accuracy and completeness. Thanks also are due to Eugene H. Buck and Marjorie Ann Browne, compiler of the 1977 compendium, both of the Congressional Research Service, for their help in locating documents.

Sincere thanks are also owed the many other organizations and individuals in the United States and abroad who helped with research or provided documents.

John R. Twiss, Jr.
Executive Director
Marine Mammal Commission
Washington, D.C.
December 1993

Abbreviations and Citations

The following list identifies abbreviations and citations used to indicate primary sources of documents in the *Compendium:*

Bevans	*Treaties and Other International Agreements of the United States of America 1776–1949*
Cmnd.	"Command Papers" of the Government of the United Kingdom
ETS	*European Treaty Series*
ILM	*International Legal Materials*
LNTS	*League of Nations Treaty Series*
TIAS	*United States Treaties and Other International Acts Series*
TS	*United States Treaty Series*
UNTS	*United Nations Treaty Series*
UST	*United States Treaties and Other International Agreements*

MULTILATERAL

ANTARCTICA

The Antarctic Treaty, Washington, 1959

Done at Washington 1 December 1959

Entered into force 23 June 1961

Depositary: United States

Primary source citation: 12 UST 794, TIAS 4780

THE ANTARCTIC TREATY

The Governments of Argentina, Australia, Belgium, Chile, the French Republic, Japan, New Zealand, Norway, the Union of South Africa, the Union of Soviet Socialist Republics, the United Kingdom of Great Britain and Northern Ireland, and the United States of America,

Recognizing that it is in the interest of all mankind that Antarctica shall continue forever to be used exclusively for peaceful purposes and shall not become the scene or object of international discord;

Acknowledging the substantial contributions to scientific knowledge resulting from international cooperation in scientific investigation in Antarctica;

Convinced that the establishment of a firm foundation for the continuation and development of such cooperation on the basis of freedom of scientific investigation in Antarctica as applied during the International Geophysical Year accords with the interests of science and the progress of all mankind;

Convinced also that a treaty ensuring the use of Antarctica for peaceful purposes only and the continuance of international harmony in Antarctica will further the purposes and principles embodied in the Charter of the United Nations;

Have agreed as follows:

ARTICLE I

1. Antarctica shall be used for peaceful purposes only. There shall be prohibited, *inter alia*, any measures of a military nature, such as the establishment of military bases and fortifications, the carrying out of military maneuvers, as well as the testing of any type of weapons.

2. The present Treaty shall not prevent the use of military personnel or equipment for scientific research or for any other peaceful purpose.

ARTICLE II

Freedom of scientific investigation in Antarctica and cooperation toward that end, as applied during the International Geophysical Year, shall continue, subject to the provisions of the present Treaty.

ARTICLE III

1. In order to promote international cooperation in scientific investigation in Antarctica, as provided for in Article II of the present Treaty, the Contracting Parties agree that, to the greatest extent feasible and practicable:

(a) information regarding plans for scientific programs in Antarctica shall be exchanged to permit maximum economy and efficiency of operations;

(b) scientific personnel shall be exchanged in Antarctica between expeditions and stations;

(c) scientific observations and results from Antarctica shall be exchanged and made freely available.

2. In implementing this Article, every encouragement shall be given to the establishment of cooperative working relations with those Specialized Agencies of the United Nations and other international organizations having a scientific or technical interest in Antarctica.

ARTICLE IV

1. Nothing contained in the present Treaty shall be interpreted as:

(a) a renunciation by any Contracting Party of previously asserted rights of or claims to territorial sovereignty in Antarctica;

(b) a renunciation or diminution by any Contracting Party of any basis of claim to territorial sovereignty in Antarctica which it may have whether as a result of its activities or those of its nationals in Antarctica, or otherwise;

(c) prejudicing the position of any Contracting Party as regards its recognition or non-recognition of any other State's right of or claim or basis of claim to territorial sovereignty in Antarctica.

2. No acts or activities taking place while the present Treaty is in force shall constitute a basis for asserting, supporting or denying a claim to territorial sovereignty in Antarctica or create any rights of sovereignty in Antarctica. No new claim, or enlargement of an existing claim, to territorial sovereignty in Antarctica shall be asserted while the present Treaty is in force.

ARTICLE V

1. Any nuclear explosions in Antarctica and the disposal there of radioactive waste material shall be prohibited.

2. In the event of the conclusion of international agreements concerning the use of nuclear energy, including nuclear explosions and the disposal of radioactive waste material, to which all of the Contracting Parties whose representatives are entitled to participate in the meetings provided for under Article IX are parties, the rules established under such agreements shall apply in Antarctica.

ARTICLE VI

The provisions of the present Treaty shall apply to the area south of 60° South Latitude, including all ice shelves, but nothing in the present Treaty shall prejudice or in any way affect the rights, or the exercise of the rights, of any State under international law with regard to the high seas within that area.

ARTICLE VII

1. In order to promote the objectives and ensure the observance of the provisions of the present Treaty, each Contracting Party whose representatives are entitled to participate in the meetings referred to in Article IX of the Treaty shall have the right to designate observers to carry out any inspection provided for by the present Article. Observers shall be nationals of the Contracting Parties which designate them. The names of observers shall be communicated to every other Contracting Party having the right to designate observers, and like notice shall be given of the termination of their appointment.

2. Each observer designated in accordance with the provisions of paragraph 1 of this Article shall have complete freedom of access at any time to any or all areas of Antarctica.

3. All areas of Antarctica, including all stations, installations and equipment within those areas, and all ships and aircraft at points of discharging or embarking cargoes or personnel in Antarctica, shall be open at all times to inspection by any observers designated in accordance with paragraph 1 of this Article.

4. Aerial observation may be carried out at any time over any or all areas of Antarctica by any of the Contracting Parties having the right to designate observers.

5. Each Contracting Party shall, at the time when the present Treaty enters into force for it, inform the other Contracting Parties, and thereafter shall give them notice in advance, of

(a) all expeditions to and within Antarctica, on the part of its ships or nationals, and all expeditions to Antarctica organized in or proceeding from its territory;

(b) all stations in Antarctica occupied by its nationals; and

(c) any military personnel or equipment intended to be introduced by it into Antarctica subject to the conditions prescribed in paragraph 2 of Article I of the present Treaty.

ARTICLE VIII

1. In order to facilitate the exercise of their functions under the present Treaty, and without prejudice to the respective positions of the Contracting Parties relating to jurisdiction over all other persons in Antarctica, observers designated under paragraph 1 of Article VII and scientific personnel exchanged under subparagraph 1(b) of Article III of the Treaty, and members of the staffs accompanying any such persons, shall be subject only to the jurisdiction of the Contracting Party of which they are nationals in respect of all acts or omissions occurring while they are in Antarctica for the purpose of exercising their functions.

2. Without prejudice to the provisions of paragraph 1 of this Article, and pending the adoption of measures in pursuance of subparagraph 1(e) of Article IX, the Contracting Parties concerned in any case of dispute with regard to the exercise of jurisdiction in Antarctica shall immediately consult together with a view to reaching a mutually acceptable solution.

ARTICLE IX

1. Representatives of the Contracting Parties named in the preamble to the present Treaty shall meet at the City of Canberra within two months after the date of entry into force of the Treaty, and thereafter at suitable intervals and places, for the purpose of exchanging information, consulting together on matters of common interest pertaining to Antarctica, and formulating and considering, and recommending to their Governments, measures in furtherance of the principles and objectives of the Treaty, including measures regarding:

(a) use of Antarctica for peaceful purposes only;

(b) facilitation of scientific research in Antarctica;

(c) facilitation of international scientific cooperation in Antarctica;

(d) facilitation of the exercise of the rights of inspection provided for in Article VII of the Treaty;

(e) questions relating to the exercise of jurisdiction in Antarctica;

(f) preservation and conservation of living resources in Antarctica.

2. Each Contracting Party which has become a party to the present Treaty by accession under Article XIII shall be entitled to appoint representatives to participate in the meetings referred to in paragraph 1 of the present Article, during such time as that Contracting Party demonstrates its interest in Antarctica by conducting substantial scientific research activity there, such as the establishment of a scientific station or the despatch of a scientific expedition.

3. Reports from the observers referred to in Article VII of the present Treaty shall be transmitted to the representatives of the Contracting Parties participating in the meetings referred to in paragraph 1 of the present Article.

4. The measures referred to in paragraph 1 of this Article shall become effective when approved by all the Contracting Parties whose representatives were entitled to participate in the meetings held to consider those measures.

5. Any or all of the rights established in the present Treaty may be exercised as from the date of entry into force of the Treaty whether or not any measures facilitating the exercise of such rights have been proposed, considered or approved as provided in this Article.

ARTICLE X

Each of the Contracting Parties undertakes to exert appropriate efforts, consistent with the Charter of the United Nations, to the end that no one engages in any activity in Antarctica contrary to the principles or purposes of the present Treaty.

ARTICLE XI

1. If any dispute arises between two or more of the Contracting Parties concerning the interpretation or application of the present Treaty, those Contracting Parties shall consult among themselves with a view to having the dispute resolved by negotiation, inquiry, mediation, conciliation, arbitration, judicial settlement or other peaceful means of their own choice.

2. Any dispute of this character not so resolved shall, with the consent, in each case, of all parties to the dispute, be referred to the International Court of Justice for settlement; but failure to reach agreement on reference to the International Court shall not absolve parties to the dispute from the responsibility of continuing to seek to resolve it by any of the various peaceful means referred to in paragraph 1 of this Article.

ARTICLE XII

1. (a) The present Treaty may be modified or amended at any time by unanimous agreement of the Contracting Parties whose representatives are entitled to participate in the meetings provided for under Article IX. Any such modification or amendment shall enter into force when the depositary Government has received notice from all such Contracting Parties that they have ratified it.

(b) Such modification or amendment shall thereafter enter into force as to any other Contracting Party when notice of ratification by it has been received by the depositary Government. Any such Contracting Party from which no notice of ratification is received within a period of two years from the date of entry into force of the

modification or amendment in accordance with the provisions of subparagraph 1(a) of this Article shall be deemed to have withdrawn from the present Treaty on the date of the expiration of such period.

2. (a) If after the expiration of thirty years from the date of entry into force of the present Treaty, any of the Contracting Parties whose representatives are entitled to participate in the meetings provided for under Article IX so requests by a communication addressed to the depositary Government, a Conference of all the Contracting Parties shall be held as soon as practicable to review the operation of the Treaty.

(b) Any modification or amendment to the present Treaty which is approved at such a Conference by a majority of the Contracting Parties there represented, including a majority of those whose representatives are entitled to participate in the meetings provided for under Article IX, shall be communicated by the depositary Government to all the Contracting Parties immediately after the termination of the Conference and shall enter into force in accordance with the provisions of paragraph 1 of the present Article.

(c) If any such modification or amendment has not entered into force in accordance with the provisions of subparagraph 1(a) of this Article within a period of two years after the date of its communication to all the Contracting Parties, any Contracting Party may at any time after the expiration of that period give notice to the depositary Government of its withdrawal from the present Treaty; and such withdrawal shall take effect two years after the receipt of the notice by the depositary Government.

ARTICLE XIII

1. The present Treaty shall be subject to ratification by the signatory States. It shall be open for accession by any State which is a Member of the United Nations, or by any other State which may be invited to accede to the Treaty with the consent of all the Contracting Parties whose representatives are entitled to participate in the meetings provided for under Article IX of the Treaty.

2. Ratification of or accession to the present Treaty shall be effected by each State in accordance with its constitutional processes.

3. Instruments of ratification and instruments of accession shall be deposited with the Government of the United States of America, hereby designated as the depositary Government.

4. The depositary Government shall inform all signatory and acceding States of the date of each deposit of an instrument of ratification or accession, and the date of entry into force of the Treaty and of any modification or amendment thereto.

5. Upon the deposit of instruments of ratification by all the signatory States, the present Treaty shall enter into force for those States and for States which have deposited instruments of accession. Thereafter the Treaty shall enter into force for any acceding State upon the deposit of its instrument of accession.

6. The present Treaty shall be registered by the depositary Government pursuant to Article 102 of the Charter of the United Nations.

ARTICLE XIV

The present Treaty, done in the English, French, Russian and Spanish languages, each version being equally authentic, shall be deposited in the archives of the Government of the United States of America, which shall transmit duly certified copies thereof to the Governments of the signatory and acceding States.

IN WITNESS WHEREOF, the undersigned Plenipotentiaries, duly authorized, have signed the present Treaty.

DONE at Washington this first day of December, one thousand nine hundred and fifty-nine.

Measures Approved or Recommended Under Article IX in Furtherance of Principles and Objectives of the Antarctic Treaty, Canberra, 1961

Adopted at Canberra 24 July 1961

Effective 30 April 1962

Primary source citation: 13 UST 1349, TIAS 5094

[RECOMMENDATIONS OF THE FIRST ANTARCTIC TREATY CONSULTATIVE MEETING]

The Meeting agreed unanimously to the adoption of the following recommendations:

I–I

The Representatives recommend to their Governments that they should facilitate the continuation of the exchange of information regarding plans for scientific programmes as now carried on through the Special Committee on Antarctic Research (SCAR) and through other member unions and committees of the International Council of Scientific Unions (ICSU) and by such other means as may ensure the availability of this information.

I–II

The Representatives recommend to their Governments that they should promote the continuation of the exchange, on a basis of bilateral arrangements, of scientific personnel amongst their expeditions, and should make available such of their facilities as may be helpful to this purpose.

I–III

The Representatives recommend to their Governments that they should promote the exchange and making available of observations and results from Antarctica through the recognized international data gathering centres and by such other means as may be appropriate to ensure the exchange and free availability of this information.

I–IV

The Representatives agree, without prejudice to the rights of Governments to make such arrangements as they may deem necessary to further the objectives of scientific co-operation set forth in the Treaty:

(1) that the free exchange of information and views among scientists participating in SCAR, and the recommendations concerning scientific programmes and co-operation formulated by this body constitute a most valuable contribution to international scientific co-operation in Antarctica;

(2) that since these activities of SCAR constitute the kind of activity contemplated in Article III of the Treaty, SCAR should be encouraged to continue this advisory work which has so effectively facilitated international co-operation in scientific investigation.

I–V

The Representatives recommend to their Governments that they should individually encourage the work of international organisations having a scientific or technical interest in Antarctica, including the specialised agencies of the United Nations, and should promote on a bilateral basis the establishment and development of co-operative working relations with these organisations.

In this connection, the Representatives take note of the letter to the Minister of State for External Affairs of Australia from the Secretary-General of the World Meteorological Organisation dated 28 June 1961, circulated at the Meeting. They welcome the offer made by the World Meteorological Organisation of co-operation in questions of meteorology and of the collection and relaying of meteorological data in the Antarctic, and recommend to their Governments that they should establish co-operation in these matters through their Representatives in that Organisation.

I–VI

The Representatives recommend to their Governments that information furnished in accordance with Article VII paragraph 5 should be exchanged between Governments through diplomatic channels as early in each year as possible, and in any case before the end of November each year, and should include–

(1) the names, types, numbers, descriptions and armaments of ships, aircraft and other vehicles, introduced, or to be introduced into Antarctica, and information on military equipment, if any, and its location in Antarctica;

(2) dates of expeditions leaving for, and arriving in, Antarctica, duration of stay, itinerary to and from Antarctica and routes followed within Antarctica;

(3) the names, location and date of opening of the Party's bases and subsidiary stations established or planned to be established in Antarctica, listed according to whether they are for summer and/or winter operations;

(4) the names of the officers in charge of each of these bases, subsidiary stations, ships and aircraft; the number and occupations and specialisation of personnel (including any designated by other governments), who are or will be stationed at each of these bases and subsidiary stations and on board these ships and aircraft, including the number of personnel who are members of the military services together with the rank of any officers and the names and professional affiliation of personnel engaged in scientific activities;

(5) the number and types of armaments possessed by personnel;

(6) the programme of work, including scientific investigation, being done and planned at each of these bases and subsidiary stations and on board those ships and aircraft; and also the area or areas of operation to be covered by such programme;

(7) principal scientific equipment;

(8) transportation facilities and communication equipment for use within Antarctica;

(9) facilities for rendering assistance;

(10) notice of any expeditions to Antarctica not organised by the Party but organised, in, or proceeding from, the Party's territory.

I–VII

The Representatives recommend to their Governments that they should undertake to exchange information on logistic problems. This might include information on the design and construction of buildings and airstrips, the provision of power supplies, the performance of aircraft, ships, tractors and other vehicles, techniques of supply of coastal and inland stations, the transport and handling of cargo in Antarctic conditions, food and cold weather clothing. They further recommend that consideration should be given to the calling of a meeting or symposium of experts to consider the question of the exchange of information on experience gained in matters of the organisation of expeditions, logistic support and transport, and that proposals for the calling of such a meeting or symposium should be discussed at or before the next Treaty Consultative Meeting.

I–VIII

The Representatives recommend to their Governments that:

(i) they recognize the urgent need for measures to conserve the living resources of the Treaty area and to protect them from uncontrolled destruction or interference by man;

(ii) they encourage the interchange of information and international co-operation with a view to promoting scientific studies of Antarctic life as the essential basis for long-term conservation measures;

(iii) they bring to the attention of all persons entering the area the need for the protection of living resources;

(iv) they consult on the form in which it would be most suitable to establish in due course internationally agreed measures for the preservation and conservation of the living resources of the Antarctic, taking into account the discussion at and documents submitted to the First Consultative Meeting.

(v) as an interim measure, and to the extent possible under national legislation and binding international conventions, they issue general rules of conduct on the lines of the attached statement extracted from the recommendations of SCAR as contained in the report of the Meeting held at Cambridge in August 1960;

(vi) they exchange information on any major steps taken in accordance with this recommendation with respect to the next Antarctic season;

(vii) this question be included in the Agenda of the next Consultative Meeting.

GENERAL RULES OF CONDUCT FOR PRESERVATION AND CONSERVATION OF LIVING RESOURCES IN ANTARCTICA

1. Animals and plants indigenous to Antarctica shall not be unnecessarily disturbed and shall not be destroyed or injured. Exceptions shall be permitted on a strictly controlled scale which will not deplete the local stock and only for the following purposes:

   (a) collections and studies for scientific purposes;

   (b) food (e.g. meat, eggs) for men and dogs;

(c) living specimens for zoological gardens;

(d) taking a strictly limited number of specimens, especially natural casualties, for private purposes.

Exceptions (c) and (d) shall not apply for the time being to fur seals.

2. Alien forms of flora and fauna should not be deliberately introduced except when rigidly controlled having regard to their chances of survival, capacity of reproduction and utilization by man.

3. The following activities should be regulated with a view to preventing serious harm to wildlife:

(a) allowing dogs to run free,

(b) flying helicopters or other aircraft in a manner which would unnecessarily disturb bird and seal colonies, or landing near (e.g. within 200 yards) such colonies,

(c) driving vehicles unnecessarily close to breeding colonies of birds and seals,

(d) use of explosive or discharge of firearms close to breeding colonies of birds and seals,

(e) disturbance of bird and seal colonies by persistent attention from people on foot,

(f) the discharge of oil from ships in a manner harmful to animals and plants indigenous to Antarctica.

I–IX

With due regard to Article IV of the Treaty, the Representatives recommend that–

(1) Governments interested in any tombs, buildings or objects of historic interest should consult together whenever appropriate on their restoration or preservation;

(2) appropriate reports on the condition of such tombs, buildings or objects of historic interest as well as any restoration which might have been effected should be exchanged among Governments;

(3) Governments adopt all adequate measures to protect such tombs, buildings or objects of historic interest, from damage and destruction.

I–X

The Representatives reaffirm the traditional Antarctic principle that expeditions render all assistance feasible in the event of an emergency request for help and recommend to their Governments that consideration should be given to arranging consultations among them, and to the matter being discussed at the appropriate time at any meeting of experts qualified to discuss it.

I–XI

The Representatives recommend to their Governments:

(1) that they convene as soon as practicable a meeting of specialists in Antarctic radio communications;

(2) that this meeting of specialists should discuss the telecommunications facilities needed for scientific, technical and other purposes in the Treaty area, and their use;

(3) that the meeting should take into consideration-

(a) the requirements of governments;

(b) the viewpoint of the United Nations Specialised Agencies and other International organisations having a scientific or technical interest in Antarctic communications;

(c) the relevant recommendations of the communications working group of SCAR;

(d) the experience of the various Antarctic expeditions;

(4) that the meeting should examine and make recommendations regarding such matters as-

(i) the routing required to meet demands of users most effectively;

(ii) the modes of transmission;

(iii) the power requirements for effective reception;

(iv) the rationalisation of schedules and the evaluation of priorities for traffic in normal and post blackout conditions.

(v) new developments in the field of communications relevant to Antarctic requirements;

(vi) emergency radio procedures;

(vii) such other matters of an engineering or traffic nature as may be appropriate;

(5) that the Governments should consult regarding the date, place and definitive agenda of the meeting, and as to which specialised agencies and other international organisations referred to in paragraph 3(b) should be informed of the meeting and be invited to send observers.

I–XII

The Representatives recommend to their Governments that they should:–

1. promote co-operation among expeditions in the Treaty area in the collection and distribution of mail for expedition members;

2. advise each other of opportunities for forwarding mail to and from stations in the Treaty area;

3. consult together with a view to reaching agreement on further practical measures for improving postal communications in the Treaty area.

I–XIII

Taking into consideration the provisions established in Article V of the Antarctic Treaty, the Representatives recommend to their Governments that they exchange by all means deemed advisable information on the application of nuclear equipment and techniques in the Treaty area.

I–XIV

Pending any further recommendation which may be adopted at a future Meeting concerning the procedures to be followed in connection with the Consultative Meetings provided for in Article IX of the Treaty, the Representatives recommend to their Governments that as an interim measure:

(1) the Government of the host country of the present Meeting shall send to each of the participating Governments a certified copy of the Final Report containing the authentic texts of all documents agreed and adopted by the Meeting. It shall also send to the other participating Governments any other documents relative to the Meeting and comply with any additional request, or answer any questions on the subject, and supply any information which the participating Governments may subsequently request regarding the First Consultative Meeting or recommendations of that Meeting;

(2) the Government of the country where the next Meeting is to be held shall consult the other Governments entitled to participate in the Consultative Meetings in regard to the provisional agenda and the choice of the opening date of the Meeting;

(3) the Governments shall consult through diplomatic channels as they deem necessary on matters of common interest relating to the Treaty area including matters which may be proposed for consideration at future Consultative Meetings;

(4) notifications of approval by Governments of recommendations adopted at Consultative Meetings shall be communicated through diplomatic channels to all other such Governments entitled to participate in the Consultative Meetings;

(5) the depositary Government designated in the Antarctic Treaty shall inform all signatory and acceding states when any recommendation has been approved in accordance with Article IX (4) of the Treaty by all the Contracting Parties whose representatives were entitled to participate in the Meeting held to consider that recommendation.

I–XV

The Representatives recommend to their Governments that they accept the offer by the Delegation of Argentina of the city of Buenos Aires as the seat of the Second Consultative Meeting under Article IX of the Antarctic Treaty, to be held on a date mutually decided upon by the participating Governments.

I–XVI

The Representatives recommend to their Governments that reports, studies and all other documentation, including any specific proposal or draft recommendation, which any participating Government may desire to place before the next Consultative Meeting, shall be forwarded through diplomatic channels so as to reach all Governments entitled to participate in that Consultative Meeting, at least one month prior to the Meeting, except in circumstances of urgency.

[STATEMENTS]

In respect of Recommendation I–IX, the French Delegation stated that the French Government would wish to give the word "object" a fairly broad significance.

In respect of Recommendation I–XII, the United Kingdom Delegation stated that it considered that Governments should, in consulting together with a view to reaching agreement on further practical measures for improving postal communications in the Treaty area, give consideration to the following measures:

(a) accept for transmission to the Antarctic by all available means of transport correspondence or mails, other than philatelic mail, addressed to Antarctic stations occupied by other participating countries;

(b) invite the International Bureau of the Universal Postal Union to advise other postal administrations to send correspondence addressed to an Antarctic station to the postal administration of the country occupying the station for onward transmission;

(c) recognize as duly prepaid correspondence originating in an Antarctic station occupied by another participating country and prepaid in postage stamps issued by that country;

(d) accept such prepaid correspondence for transmission from the Antarctic by all available means of transport to the most convenient office of exchange in a participating country;

(e) reforward the correspondence from the office of exchange to its destination in accordance with the provisions of the Universal Postal Convention, particularly those concerning transit payments;

(f) put their mail services, subject to prepayment in the normal way, at the disposal of the personnel of any Antarctic station occupied by another participating country which is for any reason prevented from using the stamps of that country for the prepayment of its correspondence.

In respect of Recommendation I–XIII, the Chilean Delegation stated that it understood that the declaration in no way implied a change in Article V of the Antarctic Treaty, and the French Delegation stated that it considered that the information exchanged should also be brought to the notice of the International Atomic Energy Agency when Governments considered this was appropriate.

In respect of Recommendation I–XIV, the New Zealand Delegation expressed the hope that any consultations pursuant to paragraphs 2 and 3 would take place in a capital where New Zealand had diplomatic representation.

Measures Approved or Recommended Under Article IX in Furtherance of Principles and Objectives of the Antarctic Treaty, Buenos Aires, 1962

Adopted at Buenos Aires 28 July 1962

Effective 11 January 1963

Primary source citation: 14 UST 99, TIAS 5274

[RECOMMENDATIONS OF SECOND ANTARCTIC TREATY CONSULTATIVE MEETING]

The Meeting unanimously agreed to adopt the following recommendations:

II – I

The Representatives recommend to their Governments that, in accordance with Article III of the Antarctic Treaty and in the light of recommendations made by SCAR, they take measures contributing to:

1. The completion by July 1, 1963, or as soon thereafter as practicable, of the transmission by scientific organizations to the recognized international data gathering centres of scientific observations carried out in Antarctica from 1957 until 1959 inclusive, and 1960 if possible.

2. (a) The free availability and exchange, by all appropriate means, of scientific observations and results, in every scientific discipline, obtained by expeditions in any part of Antarctica;

   (b) the prompt transmission, preferably within a year of the receipt in each country of the data from Antarctica, of such observations and results to the recognized international data gathering centres, where such centres exist.

3. (a) The free availability of published results of Antarctic research carried out since the beginning of the International Geophysical Year;

   (b) the transmission to the recognized international data gathering centres, before July 1, 1963, of such publications already issued;

   (c) the transmission to these centres of future publications within two months of their issue or as soon thereafter as practicable.

II – II

Recalling and reaffirming Recommendation I–VIII of the First Consultative Meeting, and expressing their conviction that the general rules attached to that Recommendation should be scrupulously observed.

The Representatives recommend to their Governments that:

a) they collect and exchange information on the measures which they have adopted for the protection of living resources in the Antarctic;

b) they promote the further exchange and evaluation of information about the existing state of living resources in the Antarctic;

c) they consult together with a view to the establishment, in an appropriate form and at an early date, of effective and internationally agreed measures on this subject,

d) these consultations should take into account the rules attached to Recommendation I–VIII of the First Consultative Meeting, the recommendations made on this subject by SCAR, the proposal submitted by the Delegation of the United Kingdom in Document P.3 to the Second Consultative Meeting, and the views expressed by Delegations in the discussion of this item;

e) in the course of the meetings held to prepare the Third Consultative Meeting they undertake the task of formulating, on the basis of the principles enunciated above, the draft text of measures on this subject to be submitted to that Consultative Meeting with a view to its approval and recommendation to Governments.

II – III

The Representatives, taking into consideration Recommendation I–XI of the First Consultative Meeting concerning Antarctic radio communications, recommend to their Governments that the proposed meeting of specialists in Antarctic radio communications should take place between May 1 and August 31, 1963 on a date and at a place to be fixed.

II – IV

In accordance with Article VII paragraph 5 of the Antarctic Treaty, the Representatives recommend to their Governments that they should endeavour to furnish prompt and full information regarding their Antarctic activities as listed in Recommendation I–VI of the First Consultative Meeting, and within the time limits indicated in that Recommendation.

II – V

The Representatives recommend to their Governments that in view of Recommendation I–VII of the First Consultative Meeting designed to achieve one of the objectives of the Antarctic Treaty, namely the creation of conditions necessary for carrying out scientific investigation, and in view of the logistic symposium organized by SCAR which is soon to take place:

a) a meeting or symposium of experts should be held, to review the present state of knowledge acquired on the organization of expeditions, logistic support and transport, in order to evaluate such knowledge;

b) consultations be held during the preparations for the next Consultative Meeting to fix a suitable date, place, organization and agenda for such meeting or symposium.

II – VI

The Representatives recommend to their Governments that they report through diplomatic channels, as soon as possible, and in any case prior to June 30 of each year, on any extensions, reductions or other modifications in the development of the activities previously reported in accordance with Article VII paragraph 5 of the Antarctic Treaty, and Recommendation I–VI of the First Consultative Meeting.

II – VII

The Representatives recommend to their Governments that, in order better to implement Articles II and III of the Antarctic Treaty and Recommendations I–I and I–II of the First Consultative Meeting, they should make appropriate arrangements:

a) to expedite the execution of administrative procedures required by their Laws, regulations and binding international agreements that apply to shipments of samples, specimens, records and scientific instruments related to Antarctic scientific research;

b) to provide proper care in the handling of this type of shipments.

II – VIII

The Representatives recommend to their Governments that they should encourage, by whatever means they consider appropriate, international cooperation and the interchange of scientific personnel, observations and results, in connection with their respective national programmes of Antarctic scientific investigation and research associated with the International Year of the Quiet Sun (1964–65).

II – IX

The Representatives recommend to their Governments:

a) that they take the necessary steps to examine as soon as possible, in conformity with their legal and constitutional procedures, the recommendations adopted by any Consultative Meeting and that they take a decision on such recommendations as they find themselves able to approve as soon as possible after such recommendations have been officially communicated to them by the Government which was the host for the Consultative Meeting concerned;

b) that if they find themselves unable to give early approval to one or more of the recommendations of a Consultative Meeting, they should signify their approval of the remaining recommendations, whether separately or as a group, as soon as they are able to do so.

II – X

The Representatives recommend that their Governments accept the offer made by the Delegation of Belgium, to the effect that the Third Consultative Meeting under Article IX of the Antarctic Treaty be held in Brussels.

This Meeting will be held on a date to be decided upon by agreement among the participating Governments.

[STATEMENT]

With reference to Recommendation II–X, the Chilean delegation expressed the hope that in the near future the Consultative Meeting will recommend to the Governments that the sessions referred to in Article IX of the Antarctic Treaty be held every two years, on the date considered most appropriate, without prejudice to advancing these dates or convening extraordinary sessions should circumstances render it advisable.

Measures Approved or Recommended Under Article IX in Furtherance of Principles and Objectives of the Antarctic Treaty, Brussels, 1964

Adopted at Brussels 2–13 June 1964

Recommendations III-I through III-VI, III-IX, and III-X effective 27 July 1966;
Recommendation III-XI effective 1 September 1966;
Recommendation III-VII effective 22 December 1978;
Recommendation III-VIII effective 1 November 1982

Primary source citation: 17 UST 991, TIAS 6058;
Recommendation III-VII: TIAS 10485;
Recommendation III-VIII: Handbook of the Antarctic Treaty System, Seventh Edition, October 1990

[CERTAIN RECOMMENDATIONS OF THIRD ANTARCTIC TREATY CONSULTATIVE MEETING]

The Meeting agreed unanimously to adopt the following Recommendations:

III–I

INFORMATION ON FACILITIES FOR THE LANDING OF AIRCRAFT

The Representatives, taking into account Recommendation I–VI(8) of the First Consultative Meeting, recommend to their Governments that they exchange, within the framework of Recommendation I–VI(8), information on airfield facilities in the Antarctic Treaty Area. This information should include particulars of location, operating conditions and limitations, radio aids to navigation, facilities for radio communications and instrument landing, and be in detail sufficient to enable an aircraft to make a safe landing.

III–II

NOTIFICATION OF UNOCCUPIED REFUGES

1. The Representatives recommend to their governments that they should exchange through diplomatic channels, before the end of November each year, lists of all unoccupied buildings, huts or caches (hereinafter referred to as refuges) maintained by them in the Treaty Area in a condition suitable for use in emergencies.

2. Such lists should include:

   I. The name and position of each refuge;

   II. A description of its location;

   III. The date on which it was established;

   IV. The approximate date on which it was last examined;

   V. An estimate of the available accommodation, facilities, food, fuel and supplies of other kinds.

   Any changes should be reported before the end of June the following year.

3. The Representatives further recommend that Governments whose expeditions use any refuge should report as rapidly as possible on any such use. Such Governments should also furnish an estimate of the amount of supplies which remain and a report about the condition of the refuge after use; in addition they should:

   a) Ensure that supplies available at these refuges are used only under emergency conditions.

   b) To the greatest extent possible, and as early as possible, replenish the supplies consumed and inform the authorities who maintain the refuge of the action taken.

III–III

LOGISTICS

In view of the Recommendations by the First and Second Consultative Meetings (I–VII and II–V) concerning logistics;

Taking into consideration the Logistic Symposium which took place at Boulder, Colorado, U.S.A., in August 1962 under the auspices of the Scientific Committee on Antarctic Research (SCAR), and the Report on this Symposium published in 1963;

The Representatives recommend to their Governments that the organization, agenda, date and place for the inter-governmental meeting of experts, on the present state of knowledge about useful aspects of logistic activities in the Antarctic to which the above Recommendations refer, be considered during the preparatory meetings for the Fourth Consultative Meeting.

III–IV

THE NEXT MEETING

The Representatives recommend to their Governments that they accept the offer of the Chilean Delegation to hold the Fourth Consultative Meeting under Article IX of the Antarctic Treaty, in Santiago, Chile.

This Meeting shall take place at a date which shall be agreed upon by the participating Governments.

III–V

TELECOMMUNICATIONS

The Representatives, noting that experts met in an Antarctic Treaty Meeting on Telecommunications in Washington from 24th-28th June, 1963, following upon Recommendations I–XI and II–III of the First and Second Consultative Meetings, and in accordance with Recommendation II–IX, recommend to their Governments that they

take the necessary steps to approve and implement as soon as practicable those Recommendations of the Telecommunications Meeting which they find themselves able to approve, taking into consideration (a) and (b) below.

The Representatives, pointing out the useful and important work effected by the Telecommunications Meeting at Washington, recommend to their Governments that they:

a) Continue their consultations with a view to effecting further improvement in coordinating telecommunications activities.

b) During the Preparatory Meetings for the next Consultative Meeting, examine the results of the Recommendations made by the Washington Telecommunications Meeting, and consider measures to improve Antarctic radio communications in the future.

III–VI

QUESTIONS CONCERNING MEETINGS OF SPECIALISTS

The Representatives, recognizing the importance of the problem raised during the examination of Item 7 (that is, the Item entitled "Questions concerning Meetings of Specialists"), recommend their Governments to examine this question attentively before the Fourth Consultative Meeting and to consider including it on the Agenda of that Meeting.

III-VII

ACCEPTANCE OF APPROVED RECOMMENDATIONS

Since the Recommendations approved by the Contracting Parties entitled to participate in meetings held in accordance with Article IX of the Antarctic Treaty are so much a part of the overall structure of cooperation established by the Treaty, the Representatives recommend to their Governments that any new Contracting Party entitled to participate in such meetings should be urged to accept these Recommendations and to inform other Contracting Parties of its intention to apply and be bound by them.

The Representatives recommend further that their Governments agree that existing Contracting Parties and any new Contracting Parties other than those entitled to participate in meetings held in accordance with Article IX of the Treaty be invited to consider accepting these Recommendations and to inform other Contracting Parties of their intention to apply and be bound by them.

III-VIII

AGREED MEASURES FOR THE CONSERVATION OF ANTARCTIC FAUNA AND FLORA

The Representatives, taking into consideration Article IX of the Antarctic Treaty, and recalling Recommendation I-VIII of the First Consultative Meeting and Recommendation II-II of the Second Consultative Meeting, recommend to their Governments that they approve as soon as possible and implement without delay the annexed "Agreed Measures for the Conservation of Antarctic Fauna and Flora".

Agreed Measures for the Conservation of Antarctic Fauna and Flora

Preamble

The Governments participating in the Third Consultative Meeting under Article IX of the Antarctic Treaty,

Desiring to implement the principles and purposes of the Antarctic Treaty;

Recognizing the scientific importance of the study of Antarctic fauna and flora, their adaptation to their rigorous environment, and their inter-relationship with that environment;

Considering the unique nature of these fauna and flora, their circum-polar range, and particularly their defencelessness and susceptibility to extermination;

Desiring by further international collaboration within the framework of the Antarctic Treaty to promote and achieve the objectives of protection, scientific study, and rational use of these fauna and flora; and

Having particular regard to the conservation principles developed by the Scientific Committee on Antarctic Research (SCAR) of the International Council of Scientific Unions;

Hereby consider the Treaty Area as a Special Conservation Area and have agreed on the following measures:

Article I
[Area of application]

1. These Agreed Measures shall apply to the same area to which the Antarctic Treaty is applicable (hereinafter referred to as the Treaty Area) namely the area south of 60° South Latitude, including all ice shelves.

2. However, nothing in these Agreed Measures shall prejudice or in any way affect the rights, or the exercise of the rights, of any State under international law with regard to the high seas within the Treaty Area, or restrict the implementation of the provisions of the Antarctic Treaty with respect to inspection.

3. The Annexes to these Agreed Measures shall form an integral part thereof, and all references to the Agreed Measures shall be considered to include the Annexes.

Article II
[Definitions]

For the purposes of these Agreed Measures:

(a) "Native mammal" means any member, at any stage of its life cycle, of any species belonging to the Class Mammalia indigenous to the Antarctic or occurring there through natural agencies of dispersal, excepting whales.

(b) "Native bird" means any member, at any state of its life cycle (including eggs), of any species of the Class Aves indigenous to the Antarctic or occurring there through natural agencies of dispersal.

(c) "Native plant" means any kind of vegetation at any stage of its life cycle (including seeds), indigenous to the Antarctic or occurring there through natural agencies of dispersal.

(d) "Appropriate authority" means any person authorized by a Participating Government to issue permits under these Agreed Measures. The functions of an authorized person will be carried out within the framework of the Antarctic Treaty. They will be carried out exclusively in accordance with scientific principles and will have as their sole purpose the effective protection of Antarctic fauna and flora in accordance with these Agreed Measures.

(e) "Permit" means a formal permission in writing issued by an appropriate authority as defined at paragraph (d) above.

(f) "Participating Government" means any Government for which these Agreed Measures have become effective in accordance with Article XIII of these Agreed Measures.

Article III
[Implementation]

Each Participating Government shall take appropriate action to carry out these Agreed Measures.

Article IV
[Publicity]

The Participating Governments shall prepare and circulate to members of expeditions and stations information to ensure understanding and observance of the provisions of these Agreed Measures, setting forth in particular prohibited activities, and providing lists of specially protected species and specially protected areas.

Article V
[Cases of extreme emergency]

The provisions of these Agreed Measures shall not apply in cases of extreme emergency involving possible loss of human life or involving the safety of ships or aircraft.

Article VI
[Protection of native fauna]

1. Each Participating Government shall prohibit within the Treaty Area the killing, wounding, capturing or molesting of any native mammal or native bird, or any attempt at any such act, except in accordance with a permit.

2. Such permits shall be drawn in terms as specific as possible and issued only for the following purposes:

(a) to provide indispensable food for men or dogs in the Treaty Area in limited quantities, and in conformity with the purposes and principles of these Agreed Measures;

(b) to provide specimens for scientific study or scientific information;

(c) to provide specimens for museums, zoological gardens, or other educational or cultural institutions or uses.

3. Permits for Specially Protected Areas shall be issued only in accordance with the provisions of Article VIII.

4. Participating Governments shall limit the issue of such permits so as to ensure as far as possible that:

(a) no more native mammals or birds are killed or taken in any year than can normally be replaced by natural reproduction in the following breeding season;

(b) the variety of species and the balance of the natural ecological systems existing within the Treaty Area are maintained.

5. The species of native mammals and birds listed in Annex A of these Measures shall be designated "Specially Protected Species", and shall be accorded special protection by Participating Governments.

6. A Participating Government shall not authorize an appropriate authority to issue a permit with respect to a Specially Protected Species except in accordance with paragraph 7 of this Article.

7. A permit may be issued under this Article with respect to a Specially Protected Species, provided that:

(a) it is issued for a compelling scientific purpose, and

(b) the actions permitted thereunder will not jeopardize the existing natural ecological system or the survival of that species.

Article VII
[Harmful interference]

1. Each Participating Government shall take appropriate measures to minimize harmful interference within the Treaty Area with the normal living conditions of any native mammal or bird, or any attempt at such harmful interference, except as permitted under Article VI.

2. The following acts and activities shall be considered harmful interference:

(a) allowing dogs to run free,

(b) flying helicopters or other aircraft in a manner which would unnecessarily disturb bird and seal concentrations, or landing close to such concentrations (eg within 300 m),

(c) driving vehicles unnecessarily close to concentrations of birds and seals (eg within 200 m),

(d) use of explosives close to concentrations of birds and seals,

(e) discharge of firearms close to bird and seal concentrations (eg within 300 m),

(f) any disturbance of bird and seal colonies during the breeding period by persistent attention from persons on foot.

However, the above activities, with the exception of those mentioned in (a) and (e) may be permitted to the minimum extent necessary for the establishment, supply and operation of stations.

3. Each Participating Government shall take all reasonable steps towards the alleviation of pollution of the waters adjacent to the coast and ice shelves.

Article VIII
[Specially Protected Areas]

1. The areas of outstanding scientific interest listed in Annex B shall be designated "Specially Protected Area" and shall be accorded special protection by the Participating Governments in order to preserve their unique natural ecological system.

2. In addition to the prohibitions and measures of protection dealt with in other Articles of these Agreed Measures, the Participating Governments shall in Specially Protected Areas further prohibit:

(a) the collection of any native plant, except in accordance with a permit;

(b) the driving of any vehicle;

(c) entry by their nationals, except in accordance with a permit issued under Article VI or under paragraph 2(a) of the present Article or in accordance with a permit issued for some other compelling scientific purpose.

3. A permit issued under Article IV shall not have effect within a Specially Protected Area except in accordance with paragraph 4 of the present Article.

4. A permit shall have effect within a Specially Protected Area provided that:

(a) it was issued for a compelling scientific purpose which cannot be served elsewhere; and

(b) the actions permitted thereunder will not jeopardize the natural ecological system existing in that Area.

Article IX
[Introduction of non-indigenous species, parasites and diseases]

1. Each Participating Government shall prohibit the bringing into the Treaty Area of any species of animal or plant not indigenous to that Area, except in accordance with a permit.

2. Permits under paragraph 1 of this Article shall be drawn in terms as specific as possible and shall be issued to allow the importation only of the animals and plants listed in Annex C. When any such animal or plant might cause harmful interference with the natural system if left unsupervised within the Treaty Area, such permits shall require that it be kept under controlled conditions and, after it has served its purpose, it shall be removed from the Treaty Area or destroyed.

3. Nothing in paragraphs 1 and 2 of this Article shall apply to the importation of food into the Treaty Area so long as animals and plants used for this purpose are kept under controlled conditions.

4. Each Participating Government undertakes to ensure that all reasonable precautions shall be taken to prevent the accidental introduction of parasites and diseases into the Treaty Area. In particular, the precautions listed in Annex D shall be taken.

Article X
[Activities contrary to the principles and purposes of these Measures]

Each Participating Government undertakes to exert appropriate efforts, consistent with the Charter of the United Nations, to the end that no one engages in any activity in the Treaty Area contrary to the principles or purposes of these Agreed Measures.

Article XI
[Ships' crews]

Each Participating Government whose expeditions use ships sailing under flags of nationalities other than its own shall, as far as feasible, arrange with the owners of such ships that the crews of these ships observe these Agreed Measures.

Article XII
[Exchange of information]

1. The Participating Governments may make such arrangements as may be necessary for the discussion of such matters as:

(a) the collection and exchange of records (including records of permits) and statistics concerning the numbers of each species of native mammal and bird killed or captured annually in the Treaty Area;

(b) the obtaining and exchange of information as to the status of native mammals and birds in the Treaty Area, and the extent to which any species needs protection;

(c) the number of native mammals or birds which should be permitted to be harvested for food, scientific study, or other uses in the various regions;

(d) the establishment of a common form in which this information shall be submitted by Participating Governments in accordance with paragraph 2 of this Article.

2. Each Participating Government shall inform the other Governments in writing before the end of November each year of the steps taken and information collected in the preceding period of 1st July to 30th June relating to the implementation of these Agreed Measures. Governments exchanging information under paragraph 5 of Article VII of the Antarctic Treaty may at the same time transmit the information relating to the implementation of these Agreed Measures.

Article XIII
[Formal provisions]

1. After the receipt by the Government designated in Recommendation I-XIV(5) of notification of approval by all Governments whose representatives are entitled to participate in meetings provided for under Article IX of the Antarctic Treaty, these Agreed Measures shall become effective for those Governments.

2. Thereafter any other Contracting Party to the Antarctic Treaty may, in consonance with the purposes of Recommendation III-VII, accept these Agreed Measures by notifying the designated Government of its intention to apply the Agreed Measures and to be bound by them. The Agreed Measures shall become effective with regard to such Governments on the date of receipt of such notification.

3. The designated Government shall inform the Governments referred to in paragraph 1 of this Article of each notification of approval, the effective date of these Agreed Measures and of each notification of acceptance. The designated Government shall also inform any Government which has accepted these Agreed Measures of each subsequent notification of acceptance.

Article XIV
[Amendment]

1. These Agreed Measures may be amended at any time by unanimous agreement of the Governments whose Representatives are entitled to participate in meetings under Article IX of the Antarctic Treaty.

2. The Annexes, in particular, may be amended as necessary through diplomatic channels.

3. An amendment proposed through diplomatic channels shall be submitted in writing to the designated Government which shall communicate it to the Governments referred to in paragraph 1 of the present Article for approval; at the same time, it shall be communicated to the other Participating Governments.

4. Any amendment shall become effective on the date on which notifications of approval have been received by the designated Government and from all of the Governments referred to in paragraph 1 of this Article.

5. The designated Government shall notify those same Governments of the date of receipt of each approval communicated to it and the date on which the amendment will become effective for them.

6. Such amendment shall become effective on that same date for all other Participating Governments, except those which before the expiry of two months after that date notify the designated Government that they do not accept it.

ANNEXES TO THESE AGREED MEASURES

ANNEX A: Specially Protected Species

All species of the genus *Arctocephalus*, Fur Seals.

Ommatophoca rossii, Ross Seal.

ANNEX B: Specially Protected Areas

SPECIALLY PROTECTED AREA No 1

Taylor Rookery, Mac.Robertson Land

Lat 67°26′S, long 60°50′E

DESCRIPTION: The area consists of the whole of the northernmost rock exposure on the eastern side of Taylor Glacier. The area is shown on the attached map.

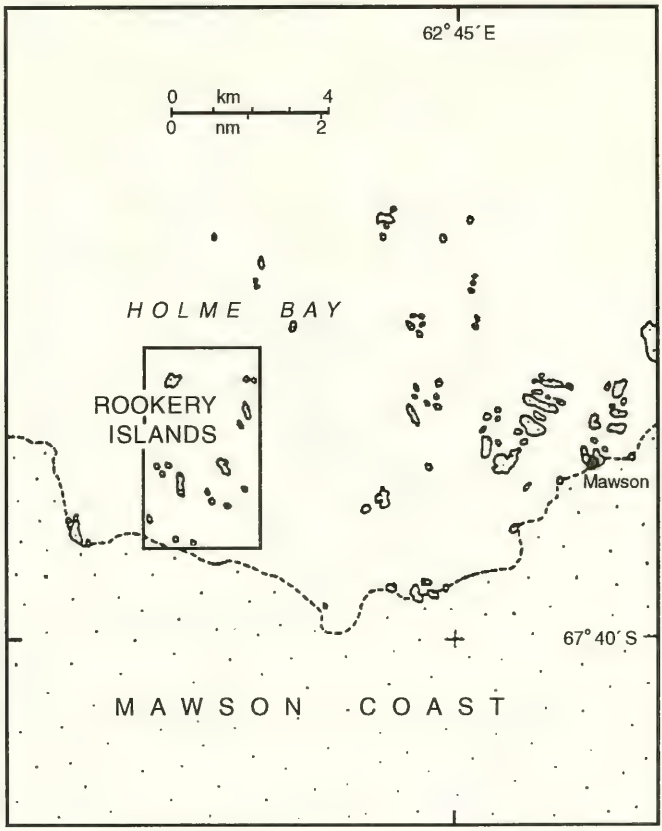
Designated in Recommendation IV-1 on the grounds that Taylor Rookery contains a colony of Emperor Penguins (*Aptenodytes forsteri*) which is one of the few, and probably the largest, of the known colonies of this species located wholly on land.

SPECIALLY PROTECTED AREA No 2

Rookery Islands, Holme Bay

Lat 67°37′S, long 62°33′E

DESCRIPTION: The area, 7 nautical miles west of Mawson, comprises the island and rocks lying within the rectangle marked on the attached map.



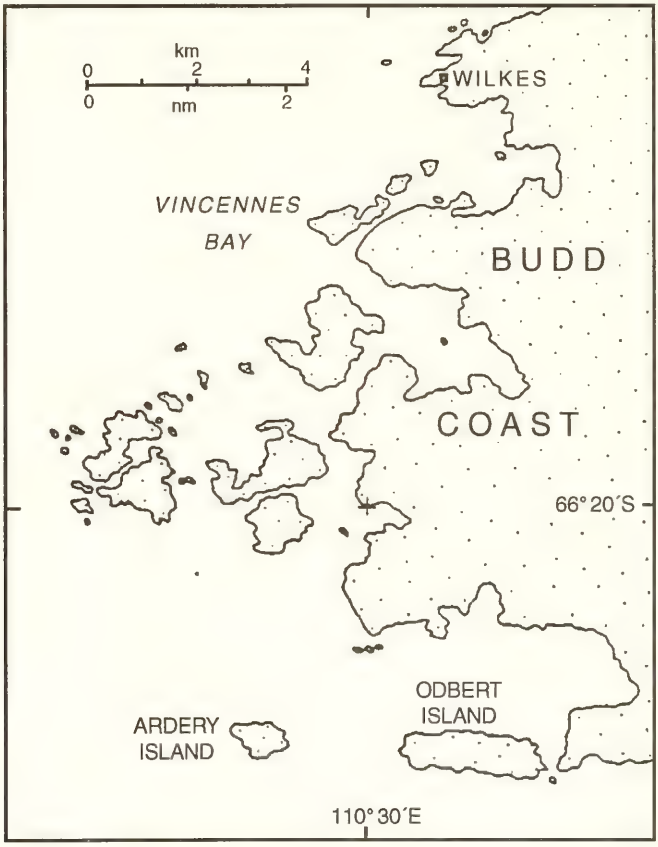
Designated in Recommendation IV-2 on the grounds that Rookery Islands contain breeding colonies of six bird species resident in the Mawson area, two of which, the Giant Petrel (*Macronectes giganteus*) and the Cape Pigeon (*Daption capensis*), occur nowhere else in the region and that it is of scientific importance to safeguard this unusual association of six species and to preserve a sample of their habitat.

SPECIALLY PROTECTED AREA No 3

Ardery Island and Odbert Island, Budd Coast

Lat 60°22′S, long 110°28′E and lat 66°22′S, long 110°33′E

DESCRIPTION: The area consists of Ardery Island and Odbert Island which lie off-shore in Vincennes Bay, 7 nautical miles south of Wilkes. The off-lying rocks are not included in the area. The area is shown on the attached map.



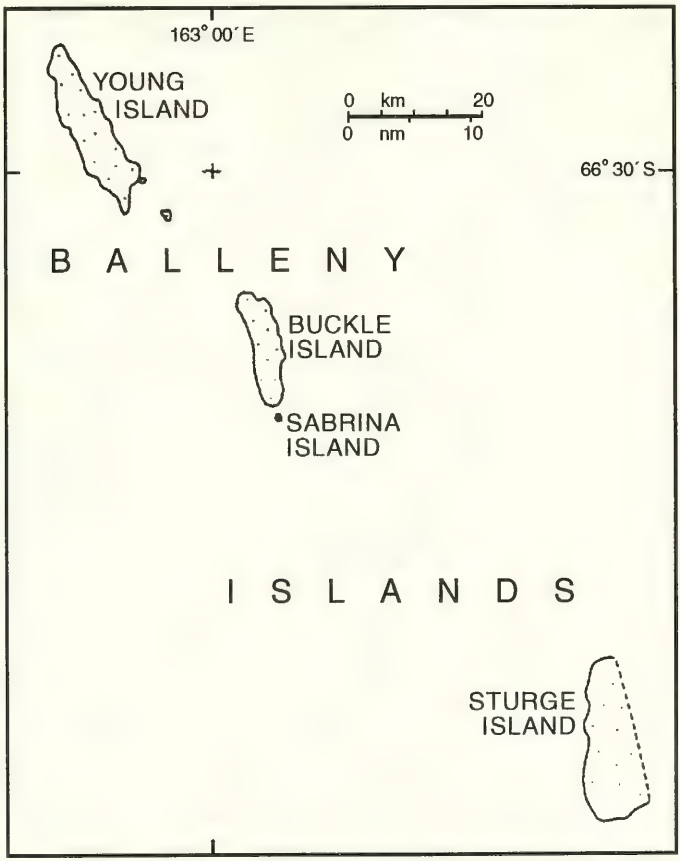
Designated in Recommendation IV-3 on the grounds that Ardery Island and Odbert Island off the Budd Coast support several breeding species of petrel and provide a sample of their habitat and that two of these species, Antarctic Petrel (*Thalassoica antarctica*) and Antarctic Fulmar (*Fulmarus glacialoides*), are of particular scientific interest.

SPECIALLY PROTECTED AREA No 4

Sabrina Island, Balleny Islands

Lat 66°54′S, long 163°20′E

DESCRIPTION: A small island some 2 kilometres south of Buckle Island in the Balleny Islands. The area is shown on the attached map.



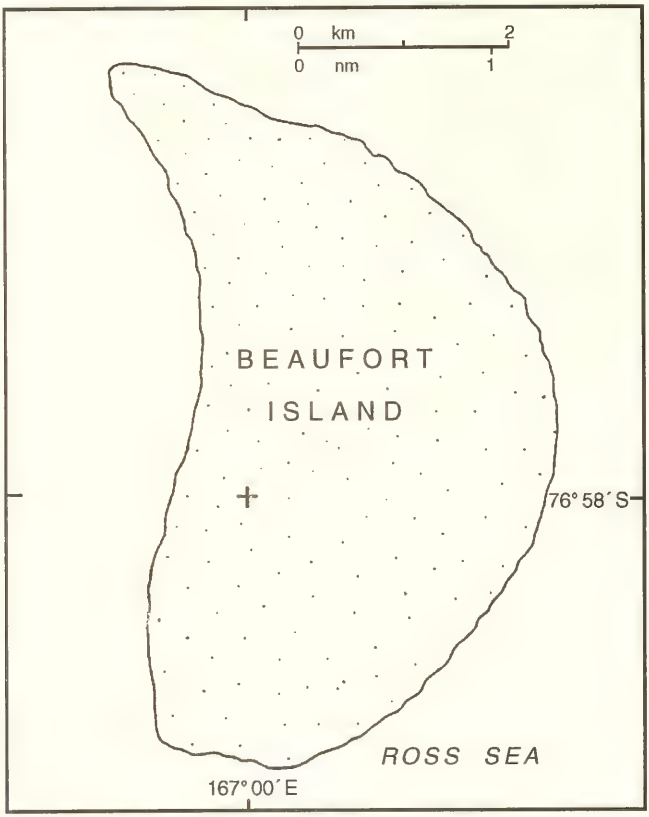
Designated in Recommendation IV-4 on the grounds that the Balleny Islands, as the most northerly Antarctic land in the Ross Sea region, support fauna and flora which reflect many circumpolar distributions at this latitude and that Sabrina Island in particular provides a representative sample of such fauna and flora.

SPECIALLY PROTECTED AREA No 5

Beaufort Island, Ross Sea

Lat 76°58′S, long 167°03′E

DESCRIPTION: Beaufort Island measures 6 kilometres by 3 kilometres and is located 20 nautical miles north of Ross Island. The area is shown on the attached map.



Created by recommendation IV-5 on the grounds that Beaufort Island contains substantial and varied avifauna, that it is one of the most important breeding grounds in the region, and that it should be protected to preserve the natural ecological system as a reference area.

NOTE: Specially Protected Area No 6 was designated in Recommendation IV-6 and terminated by VIII-2. Cape Crozier is now a Site of Special Scientific Interest No 4 by virtue of VIII-4.

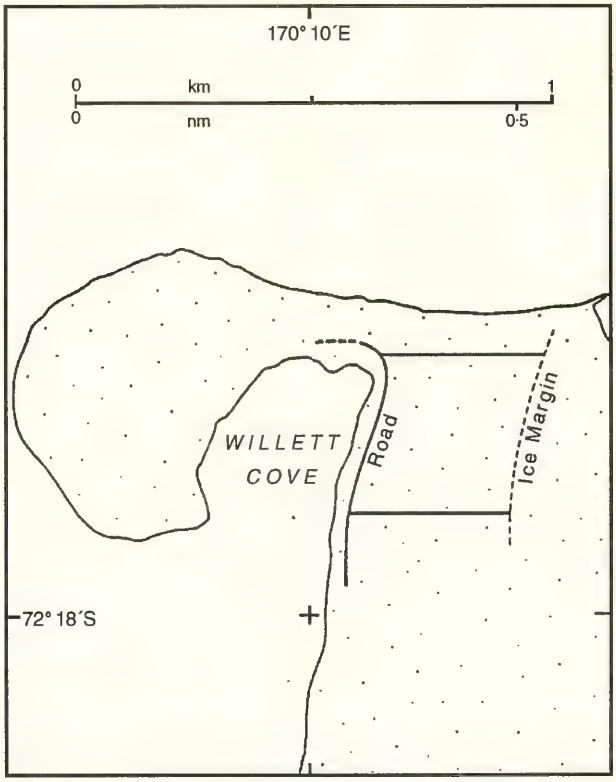
SPECIALLY PROTECTED AREA No 7

Cape Hallett, Victoria Land

Lat 72°18′S, long 179°19′E

NOTE: the boundaries of this SPA were extended by the terms of Recommendation XIII-13, see below.

DESCRIPTION: The area between the eastern side of the road, which runs along the eastern side of Willett Cove, and the western margin of the permanent ice sheet, to the south of a line from the road to the margin of the permanent ice sheet at the latitude of the head of Willett Cove, and to the north of a line from the road to the margin of the permanent ice sheet drawn 350 metres to the south of that latitude and parallel to it. The area is shown on the attached map.



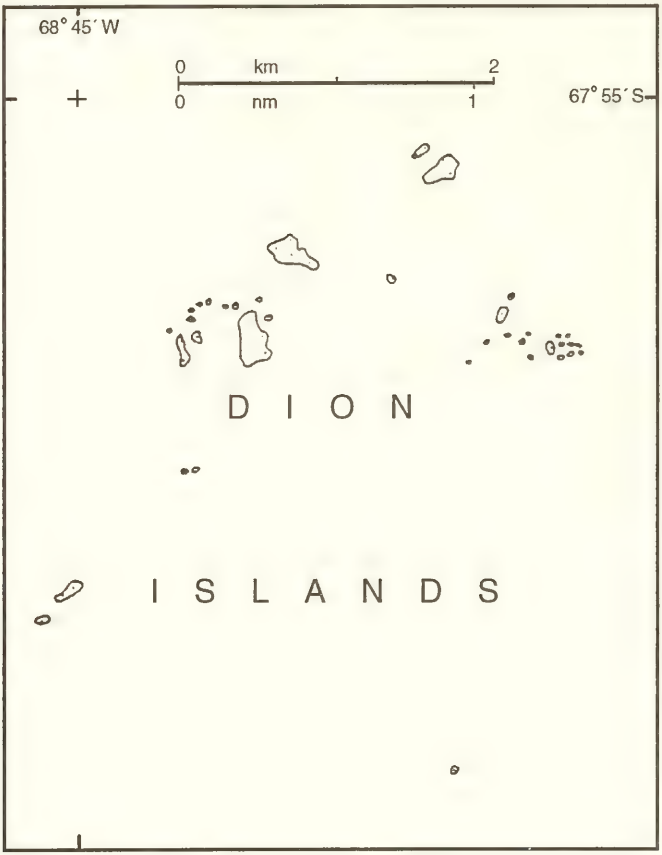
Designated in Recommendation IV-7 on the grounds that Cape Hallett includes a small patch of particularly rich and diverse vegetation which supports a variety of terrestrial fauna and that the ecosystem, which includes a rich avifauna, is of outstanding scientific interest.

SPECIALLY PROTECTED AREA No 8

Dion Islands, Marguerite Bay, Antarctic Peninsula

Lat 67°52′S, long 68°43′W

DESCRIPTION: A group of small, rocky, low-lying islands in Marguerite Bay, about 15 kilometres south of Adelaide Island. The area is shown on the attached map.



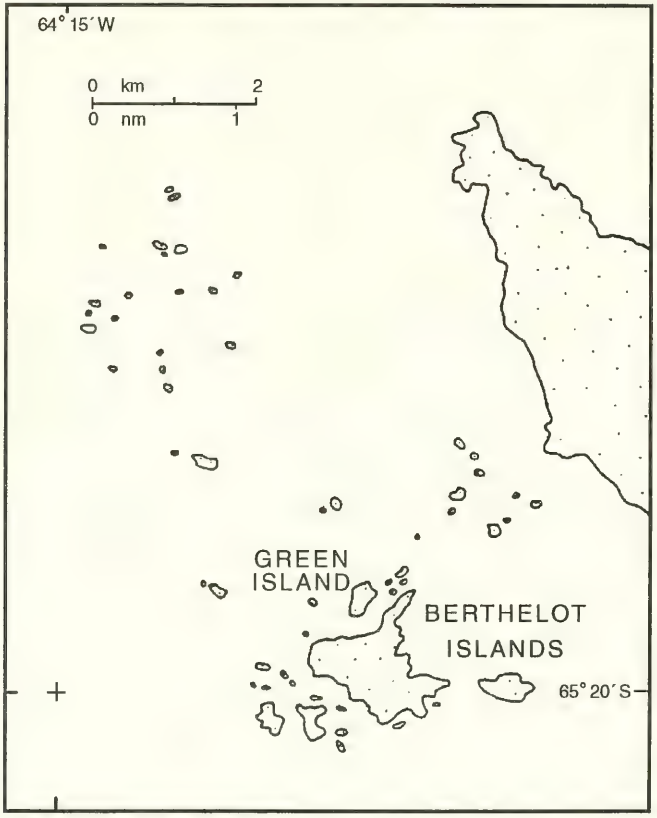
Designated in Recommendation IV-8 on the grounds that amongst the Dion Islands is found the only colony of Emperor Penguins (*Aptenodytes forsteri*) known to exist on the west side of the Antarctic Peninsula and the isolation of this colony from others of the same species makes it of outstanding scientific interest.

SPECIALLY PROTECTED AREA No 9

Green Island, Berthelot Islands, Antarctic Peninsula

Lat 65°19′S, long 64°10′W

DESCRIPTION: A small island, measuring about 600 metres by 400 metres, situated 150 metres to the north of the largest of the Berthelot Islands. The area is shown on the attached map.



Designated in Recommendation IV-9 on the grounds that the vegetation on Green Island is exceptionally rich, that it is probably the most luxuriant anywhere on the west side of the Antarctic Peninsula, that in some places the humus is 2 metres thick and that this area, being of outstanding scientific interest, should be protected because it is probably one of the most diverse Antarctic ecosystems.

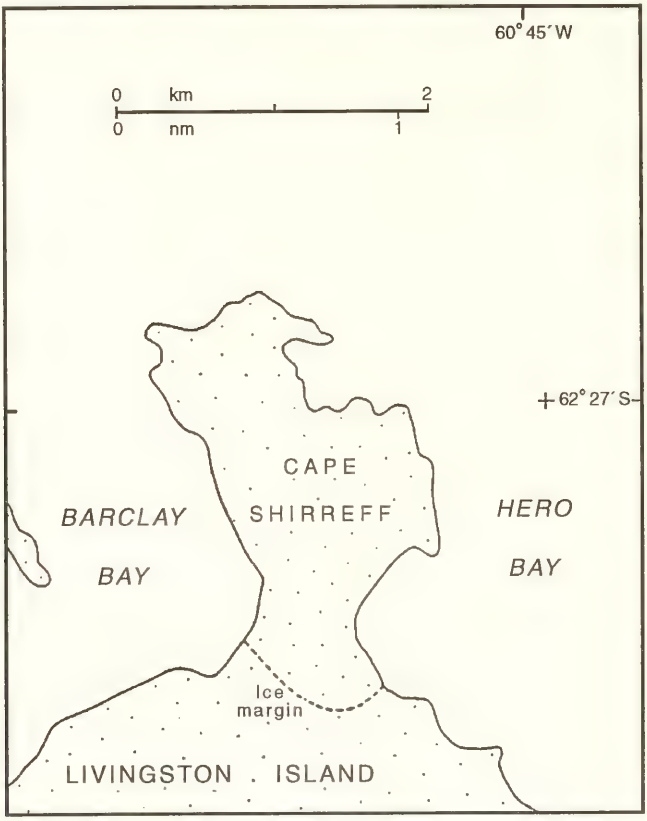
NOTE: Specially Protected Area No 10 was designated in Recommendation IV-10 and terminated by VIII-2. Byers Peninsula is now a Site of Special Scientific Interest No 6 by virtue of VIII-4.

SPECIALLY PROTECTED AREA No 11

Cape Shirreff, Livingston Island, South Shetland Islands

Lat 62°28′S, long 60°48′W

DESCRIPTION: The ice-free peninsula lying to the north of the northern margin of the permanent ice sheet on Livingston Island, between Barclay Bay and Hero Bay. The area is shown on the attached map.



Designated in Recommendation IV-11 on the grounds that Cape Shirreff supports a considerable diversity of plant and animal life, including many invertebrates, that a substantial population of Elephant Seals (*Mirounga leonina*) and small colonies of Fur Seals (*Arctocephalus* sp) are found on the beaches and that the area is of outstanding scientific interest.

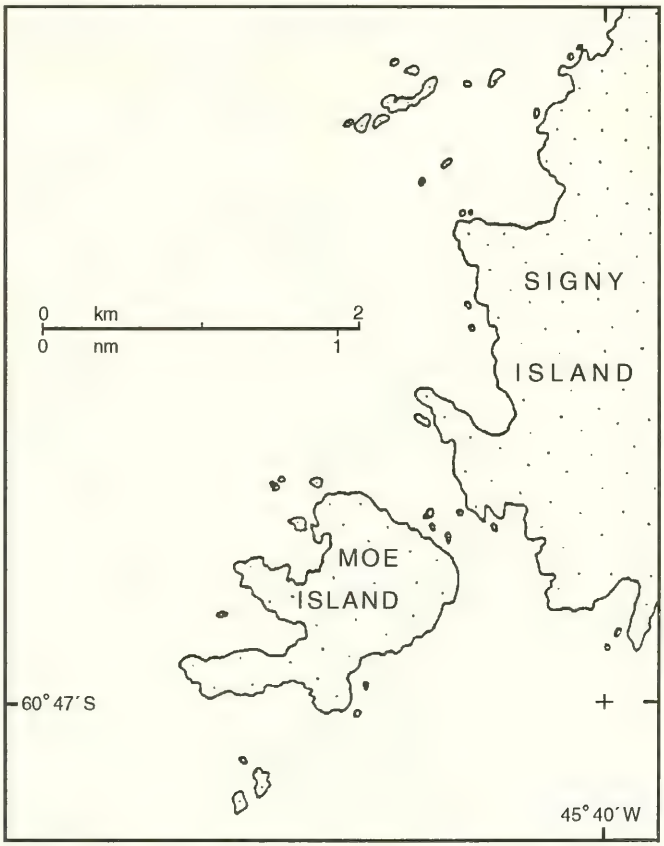
NOTE: Specially Protected Area No 12 was designated in Recommendation IV-12, modified by Recommendation V-5 and terminated by VIII-2. Fildes Peninsula is now a Site of Special Scientific Interest No 5 by virtue of VIII-4.

SPECIALLY PROTECTED AREA No 13

Moe Island, South Orkney Islands

Lat 60°45′S, long 45°41′W

DESCRIPTION: A small island about 1 kilometre long and 1 kilometre across, lying about 500 metres south-west of Signy Island, South Orkney Islands. The off-lying rocks are not included in the area. The area is shown on the attached map.



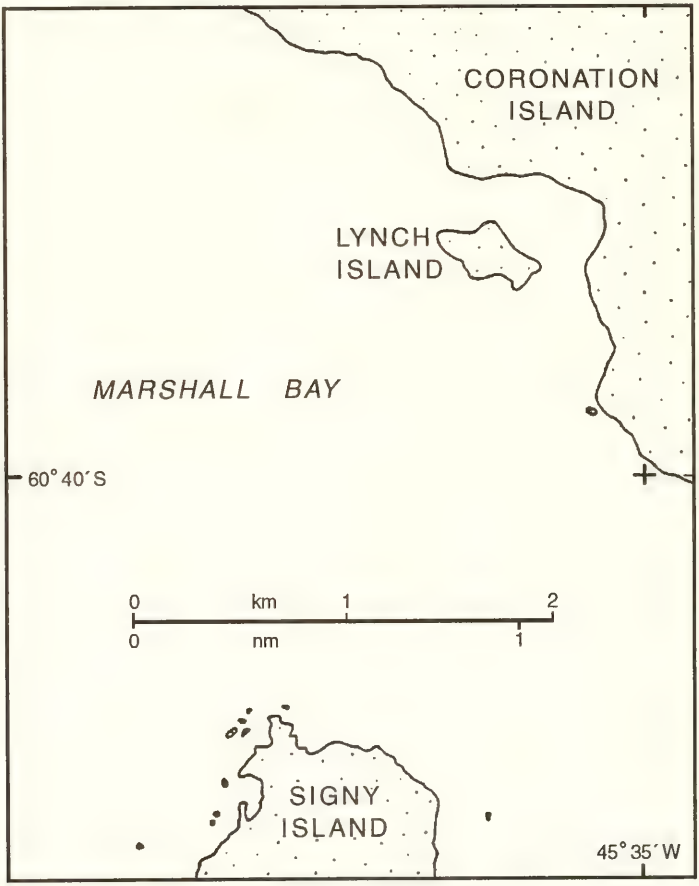
Designated in Recommendation IV-13 on the grounds that Moe Island provides a representative sample of the maritime Antarctic ecosystem, that intensive experimental research on the neighbouring Signy Island may alter its ecosystem and that Moe Island should be specially protected as a control area for future comparison.

SPECIALLY PROTECTED AREA No 14

Lynch Island, South Orkney Islands

Lat 60°40′S, long 45°38′W

DESCRIPTION: A small island, measuring about 500 metres by 300 metres, in Marshall Bay, off the south coast of Coronation Island, South Orkney Islands. The area is shown on the attached map.



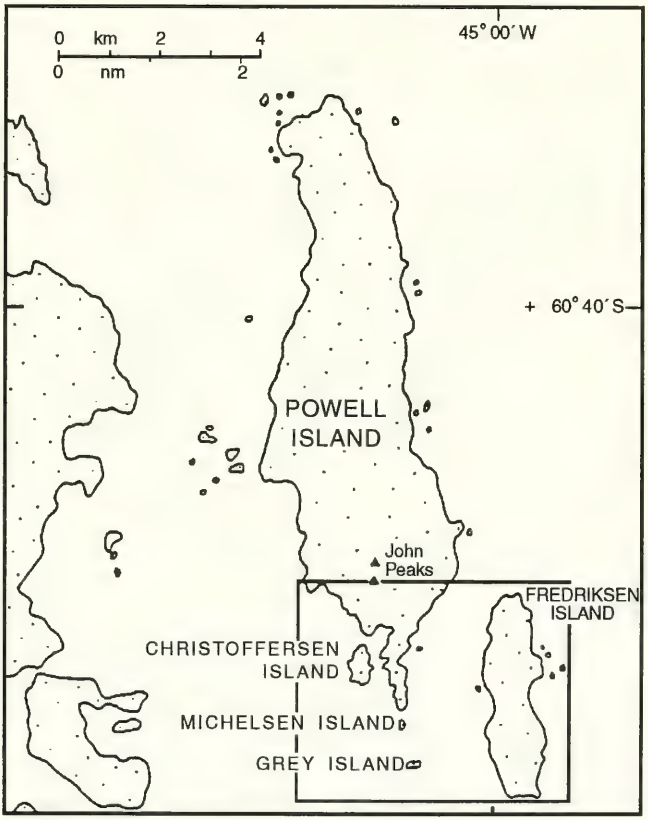
Designated in Recommendation IV-14 on the grounds that Lynch Island supports one of the most extensive and dense areas of grass (*Deschampsia antarctica*) known in the Treaty Area and that it provides an outstanding example of a rare natural ecological system.

SPECIALLY PROTECTED AREA No 15

Southern Powell Island and adjacent islands, South Orkney Islands

Lat 60°45′S, long 45°02′W

DESCRIPTION: This area in the central South Orkney Islands includes that part of Powell Island which is south of the latitude of the southern summit of John Peaks, together with the whole of Fredriksen Island, Michelsen Island, Christoffersen Island, Grey Island and the unnamed islands laying within the rectangle marked on the attached map.



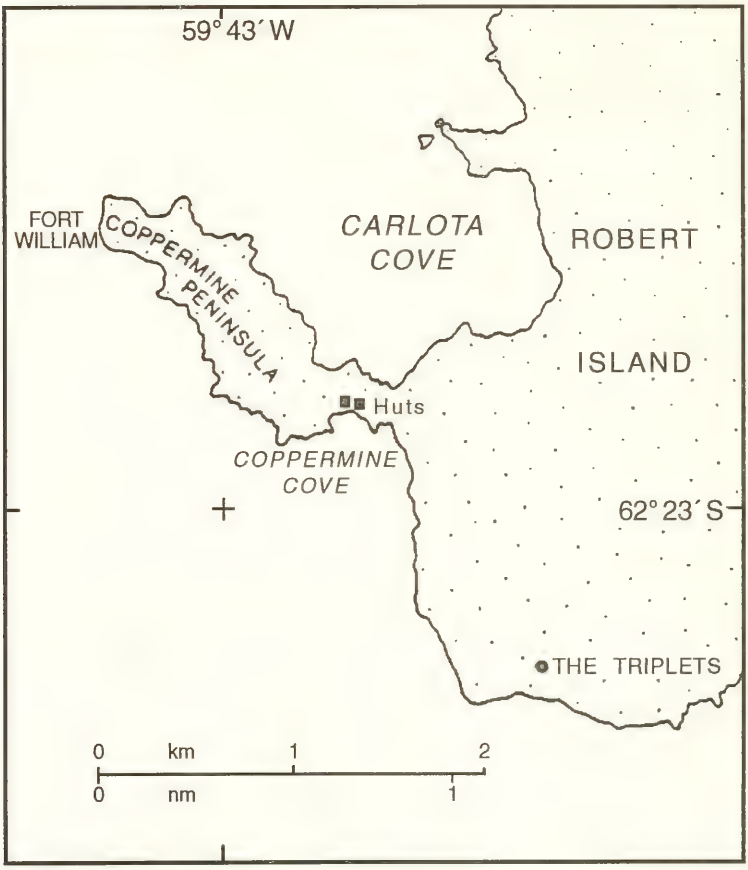
Designated in Recommendation IV-15 on the grounds that southern Powell Island and the adjacent islands support substantial vegetation and a considerable bird and mammal fauna, which is representative of the natural ecology of the South Orkney Islands, and which is rendered more important by the presence of the nucleus of an expanding colony of Fur Seals (*Arctocephalus tropicalis gazella*).

SPECIALLY PROTECTED AREA No 16

Coppermine Peninsula, Robert Island

Lat 62°23′S, long 59°42′W

DESCRIPTION: The area comprises all the land west of a line drawn from north to south across the Peninsula, 100 metres west of the two shelters found on the isthmus. The area is shown on the attached map.



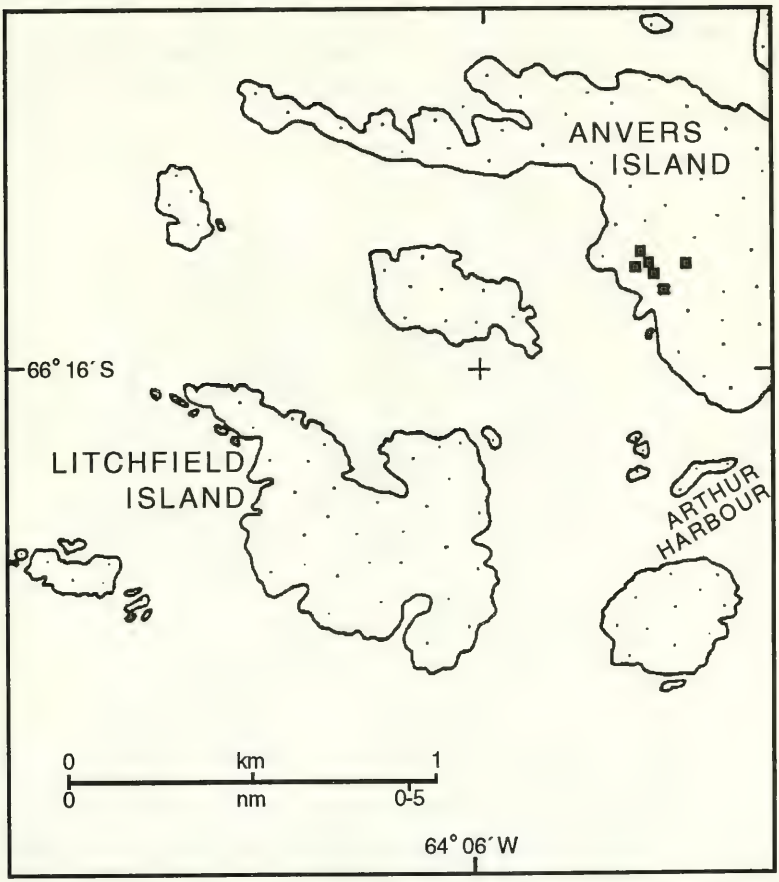
Designated in Recommendation VI-10 on the grounds that Coppermine Peninsula is a biologically diverse area, supporting rich vegetation, together with a variety of terrestrial fauna, and that the ecosystem, which includes a rich avifauna, is of outstanding scientific interest.

SPECIALLY PROTECTED AREA No 17

Litchfield Island, Arthur Harbor, Palmer Archipelago

Lat 66°16′S, long 64°06′W

DESCRIPTION: A small island, about 2.5 km^2 in area. The area is shown on the attached map.



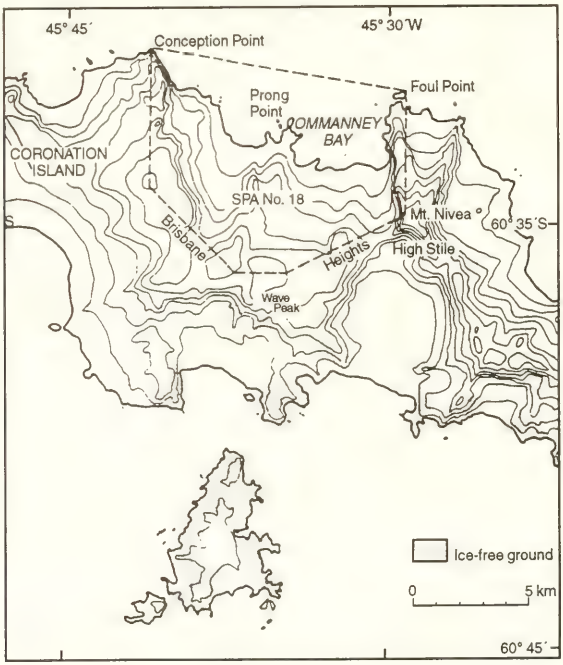
Designated in Recommendation VIII-1 on the grounds that Litchfield Island, together with its littoral, possesses an unusually rich collection of marine and terrestrial life, is unique amongst the neighbouring islands as a breeding place for six species of native birds and provides an outstanding example of the natural ecological system of the Antarctic Peninsula area.

SPECIALLY PROTECTED AREA No 18

North Coronation Island, South Orkney Islands

Between lat 60°31′S, long 45°41′W and lat 60°37′S, long 45°36′W and Lat 60°32′S, long 45°29′W.

DESCRIPTION: The area lies on the central north side of Coronation Island, South Orkney Islands. It is bounded to the east by Foul Point (Lat 60°32′S, long 45°29′W) and to the west by Conception Point (60°31′S, 45°41′ W); the entire area of these points is included in the area. The eastern boundary follows a precipitous ridge 6 km southwards to a position at 2,500 ft (750 m) altitude immediately to the west of Mt Nivea summit (60°35′S, 45°29′ W), thence west-south-westwards for 5.5 km to a position at 2,000 ft (700 m) altitude to the north-east of Wave Peak summit (60°37′S, 45°36′ W), and from there 4 km westwards across the Brisbane Heights plateau to Conception Point. The summits of Mt Nivea and Wave Peak and the col known as High Stile are outside the area. Ommaney Bay and the unnamed bay to the west are included within the area south of the boundary between Conception and Prong Points (11.5 km). The area is shown on the attached map.



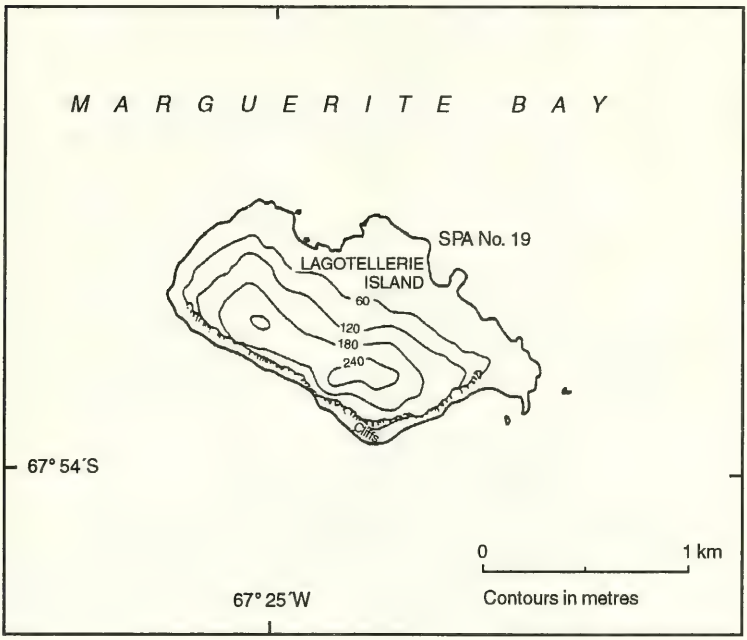
Designated in Recommendation XIII-10 on the grounds that the area bounded by Foul Point and Conception Point on the north coast of Coronation Island, South Orkney Islands, extending southwards to Wave Peak and comprising Ommaney Bay and the bay between Prong Point and Conception Point embraces areas of coastal ice-free terrain (Conception, Prong and Foul Points) with large seabird colonies and lichen-dominated cliffs, and permanent ice rising to the Brisbane Heights plateau which provides an excellent representative area of a pristine ice environment near the northern limit of the maritime Antarctic and the Antarctic Treaty Area, and that the interrelated terrestrial, permanent ice and marine components of this area comprise an integrated example of the coastal, permanent ice and sublittoral ecosystems typical of the maritime Antarctic environment.

SPECIALLY PROTECTED AREA No 19

Lagotellerie Island, Marguerite Bay

Lat 67°53′S, long 67°24′W.

DESCRIPTION: The area consists of Lagotellerie Island which lies about 3 km west of the southern part of Horseshoe Island, Marguerite Bay, south-west Antarctic Peninsula. The area is shown on the attached map.



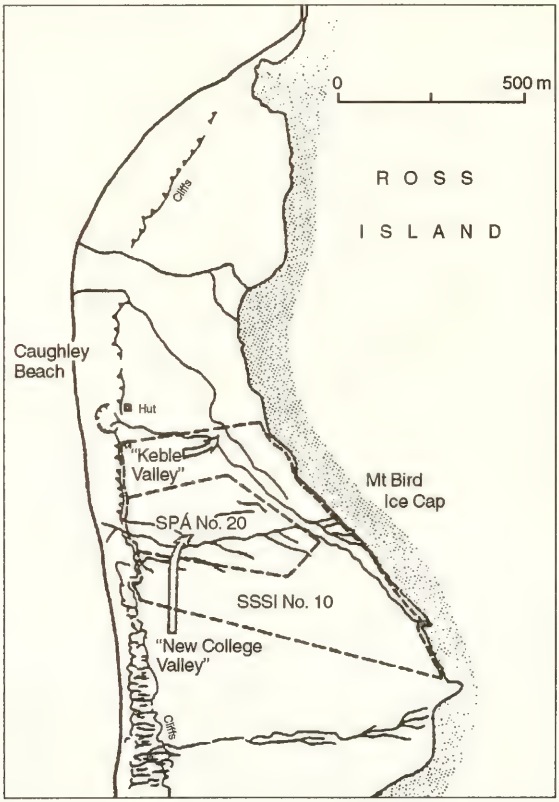
Designated in Recommendation XIII-11 on the grounds that Lagotellerie Island contains a relatively diverse flora and fauna typical of the southern Antarctic Peninsula region; that of particular interest is the abundance of the only two Antarctic flowering plants (*Deschampsia antarctica* and *Colobanthus quitensis* which form stands up to 10m^2; that these are amongst the largest stands known south of the South Shetland Islands, being only 90 km north of their southern limit; that here both species flower profusely and the seeds have a greater viability than those produced in the South Orkney and South Shetland Islands; that numerous mosses and lichens also form well developed communities on the island; that a few of the mosses are fertile, a rare phenomenon in most Antarctic localities; that the invertebrate fauna is rich and that the island is one of the southernmost sites of the apterous midge *Belgica antarctica*; that the shallow loamy soil developed beneath these swards and its associated invertebrate fauna and microbiota are probably unique at this latitude; that there is a colony of about 1,000 Adelie penguins (*Pygoscelis adeliae*) and one of the farthest south colonies of a few dozen blue eyed cormorants (*Phalacrocorax atriceps*) at the south-east corner of the island and that numerous pairs of brown and south polar skuas (*Catharacta lonnbergii* and *C. maccormicki*) breed on the island.

SPECIALLY PROTECTED AREA No 20.

"New College Valley", Caughley Beach, Cape Bird, Ross Island

Lat 77°14'S, long 166°23'E.

DESCRIPTION: The area consists of the ice free terrain lying between the cliff top above Caughley Beach and about 100 m east of the Mt Bird Ice Cap, and between a line south of the main stream bed of "Keble Valley" and the south ridge of "New College Valley". It is surrounded on three sides by Site of Special Scientific Interest No 10. The area is shown on the attached map.



Designated in Recommendation XIII-12 on the grounds that the area contains some of the most luxuriant stands of vegetation (algae, mosses and lichens) and associated microflora and microfauna in the Ross Sea sector of Antarctica; that because of the susceptibility of the cryptogamic vegetation to damage from trampling, the designation of the area provides protection for its biota, so that the area may serve as a conservation reserve representative of the adjacent Site of Special Scientific Interest No 10.

ANNEX C: Importation of animals and plants

The following animals and plants may be imported into the Treaty Area in accordance with permits issued under Article IX(2) of these Agreed Measures:

(a) sledge dogs;

(b) domestic animals and plants;

(c) laboratory animals and plants including viruses, bacteria, yeasts and fungi.

ANNEX D: Precautions to prevent accidental introduction of parasites and diseases into the Treaty Area

The following precautions shall be taken:

1. *Dogs*: All dogs imported into the Treaty Area shall be inoculated against the following diseases:

(a) distemper;

(b) contagious canine hepatitis;

(c) rabies;

(d) leptospirosis (*L. canicola* and *L. icterohaemorrhagicae*).

Each dog shall be inoculated at least two months before the time of its arrival in the Treaty Area.

2. *Poultry*: Notwithstanding the provisions of Article IX(3) of these Agreed Measures, no living poultry shall be brought into the Treaty Area after 1st July, 1966.

III–IX

INTERIM GUIDE LINES FOR CONSERVATION OF FAUNA AND FLORA

The Representatives recommend to their Governments that until such time as the Agreed Measures on the Conservation of Antarctic Fauna and Flora may become effective in accordance with Article IX of the Antarctic Treaty, these Agreed Measures as far as feasible be considered as guide lines in this interim period.

III–X

INTEREST OF SCAR IN THE CONSERVATION OF ANTARCTIC FAUNA AND FLORA

Recognizing the initiative already taken by the Scientific Committee on Antarctic Research (SCAR) on matters relating to the conservation of Antarctic fauna and flora, and considering its role as defined in Recommendation I–IV, the Representatives recommend to their Governments that they encourage SCAR to continue its interest in those matters and to prepare reports from time to time on this subject, and especially at this time on the matters that it considers should be listed in the Annexes of the Agreed Measures for the Conservation of Antarctic Fauna and Flora.

III–XI

PELAGIC SEALING AND THE TAKING OF FAUNA ON PACK ICE

The Representatives, at the time of adopting the Agreed Measures on the Conservation of Fauna and Flora,

1. considering that appropriate voluntary regulation of pelagic sealing or the taking of fauna on pack ice is of great importance for the fulfilment of the purposes and principles of these Measures;

2. recommend to their Governments that this matter be considered further by them on as broad a basis as practicable in preparing for the Fourth Consultative Meeting at Santiago, Chile, with a view to its inclusion on the Agenda for the Fourth Consultative Meeting;

3. recommend to their Governments that when ships of their nationality engage in pelagic sealing or the taking of fauna on pack ice south of 60° South Latitude, each Government voluntarily regulate these activities to ensure the survival of any species being taken and to ensure that the natural ecological system is not seriously disturbed.

Measures Approved or Recommended Under Article IX in Furtherance of Principles and Objectives of the Antarctic Treaty, Santiago, 1966

Adopted at Santiago 18 November 1966

*Recommendations IV-20 through IV-28 effective 30 October 1968; Recommendations IV-1 through IV-11 and IV-13 through IV-19 effective 1 November 1982**

Primary source citation: 20 UST 614, TIAS 6668

[CERTAIN RECOMMENDATIONS OF THE FOURTH ANTARCTIC TREATY CONSULTATIVE MEETING]

The following Recommendations were adopted unanimously:

IV – 20

INTERIM GUIDE LINES FOR THE CONSERVATION OF FAUNA AND FLORA

The Representatives recommend to their Governments that, until such time as the Agreed Measures for the Conservation of Antarctic Fauna and Flora may become effective in accordance with Article IX of the Antarctic Treaty, the following Recommendations as far as feasible be considered as guide lines in the interim period:

Recommendations IV–1 to IV–19 inclusive.

IV – 21

INTERIM GUIDE LINES FOR THE VOLUNTARY REGULATION OF ANTARCTIC PELAGIC SEALING

Recognizing that the seal stocks south of 60° South Latitude are a resource of potential value which at some future date may require a binding international agreement for its effective regulation;

Recognizing that this resource should not be depleted by overexploitation, and hence that any harvesting should be regulated at or below the level of the maximum sustainable yield;

Recognizing that in order to improve scientific knowledge and so place exploitation on a rational basis, every effort should be made both to encourage biological research on these seal populations and to gain information from the statistics of future sealing operations;

Desiring to promote and achieve the objectives of protection, scientific study and rational use of Antarctic seals;

* Recommendations IV-6, IV-10, and IV-12 were terminated by Recommendation VIII-2 (see page 128).

The Representatives recommend to their Governments that in accordance with Recommendation III–XI each Government should voluntarily take account of the following Interim Guide Lines for the Voluntary Regulation of Antarctic Pelagic Sealing:

1. The total number of seals of each species taken in the area south of 60° South Latitude should not exceed the maximum sustainable yield of that species.

2. The maximum sustainable yield of each species in the area south of 60° South Latitude should be regarded as the number of each species specified in Annex A.

3. If the number of seals taken in any locality in any year is such as to disturb the natural ecological system in that locality, no seals should be taken therein until the balance of that system has been restored and in any case until one year has elapsed.

4. A seal should not be killed or taken when it is in the water.

5. The Ross Seal (*Ommatophoca rossi*) should not be killed or taken except for scientific purposes.

6. For the purposes of these Interim Guide Lines, the area south of 60° South Latitude should be divided into the zones set out in Annex B. Seals should be killed or taken only in alternating zones and alternating periods as set out in Annex B.

7. Each Government should provide the other Contracting Governments before 31 October of each year with the following information relating to the preceding period of 1 July to 30 June:

   a) the number, for each species, of adult males, of adult females, of pregnant females, and of pups killed or taken; and

   b) the locations where these seals were killed or taken.

8. At the same time, each Government should provide to the other Contracting Governments information on any steps it has taken in accordance with these Interim Guide Lines.

9. When it appears to any Consultative Party that the harvest of any species of seal in the area of 60° South Latitude is approaching the maximum sustainable yield therein, or in any locality is disturbing the ecological system therein, that Party may propose through diplomatic channels that a Consultative Meeting be convened under Article IX of the Antarctic Treaty. If all Consultative Parties so agree, such a Meeting shall be convened as soon as possible to consider the situation and the steps it may be necessary to take.

ANNEX A
MAXIMUM SUSTAINABLE YIELD

. . . . . .
. . . . . .
. . . . . .

ANNEX B
SEALING ZONES

. . . . . .
. . . . . .
. . . . . .

IV – 22

INTEREST OF SCAR IN ANTARCTIC PELAGIC SEALING

Recognizing the initiative already taken by the Scientific Committee on Antarctic Research (SCAR) on matters relating to Antarctic pelagic sealing, and considering its role as defined in Recommendation I–IV, the Representatives recommend to their Governments that they encourage SCAR to continue its interest in these matters and to prepare

reports from time to time on this subject, and especially at this time on the matters that if considers should be listed in the annexes to the Interim Guide Lines for the Voluntary Regulation of Antarctic Pelagic Sealing.

IV – 23

DATE OF EXCHANGE OF INFORMATION

The Representatives recommend to their Governments that they exchange through diplomatic channels, not later than 31 October of each year, the information specified in as many as possible of the categories in Recommendations I–VI, III–I and III–II, the balance to be furnished as soon as possible thereafter and in any case before the end of November.

IV – 24

MEETINGS OF EXPERTS

The Representatives recommend to their Governments that:

1. Meetings of experts be convened from time to time as the need arises to discuss practical problems relating to Antarctic activities. Such meetings would be attended by experts from Consultative Parties. With the agreement of all the Consultative Parties, other experts may be invited to attend. They may submit documents and make statements, but they may not vote.

2. Such meetings be convened and the terms of reference be established either at Consultative Meetings or as a result of agreement reached through diplomatic channels among all the Consultative Parties.

3. The host Government circulate a report concerning the meeting of experts to all the Contracting Parties.

4. The report of the meeting of experts shall be submitted to a subsequent Consultative Meeting for consideration except when the Consultative Parties have agreed otherwise.

IV – 25

MEETING ON LOGISTICS

The Representatives recommend to their Governments that they accept the offer made by the Government of Japan to hold a meeting on logistics in Japan in June 1968.

1. The meeting will be held in furtherance of principles and objectives of the Antarctic Treaty.

2. The meeting will be for a period of about one week and will be attended by experts in selected fields. The meeting will have the following terms of reference:

   (i) To discuss problems in the fields of Antarctic logistics specified in paragraph 3 below.

   (ii) To exchange views on possible solutions which have been tried recently.

   (iii) To examine critically new solutions which may be proposed in papers submitted at the meeting.

3. The fields for discussion will include aspects of:

   (i) Design of buildings and building services, including waste disposal and water supply.

   (ii) Oversnow transport.

   (iii) Air transport, including airfields.

   (iv) Sea transport.

(v) Safety measures.

(vi) New and urgent problems which Governments agree require discussion.

4. A final agenda within these terms of reference will be determined by Governments through diplomatic channels after they have had an opportunity to discuss priorities with their experts.

5. The finally agreed agenda should be circulated by the host Government through diplomatic channels six months prior to the opening of the meeting.

6. A summary of each paper to be discussed at the meeting should be submitted to the host Government and to other Consultative Governments through diplomatic channels at least three months prior to the meeting.

7. A report concerning the meeting will be prepared by the host Government and circulated to all the Contracting Parties for information and any action which any Government may wish to take.

IV – 26

TELECOMMUNICATIONS

Considering the need to keep up to date the traffic system of Antarctic radio communications and to transmit observational data from the Treaty Area to the world system for the collection and transmission of meteorological information:

The Representatives recommend to their Governments that, before the Consultative Meeting scheduled to take place in Paris in 1968, they consider including in the Agenda an examination of the Recommendations made by the Washington Meeting on Telecommunications in 1963, in the light of conditions prevailing in 1968.

IV – 27

EFFECTS OF ANTARCTIC TOURISM

Recognizing that the effects of tourist activities may prejudice the conduct of scientific research, conservation of fauna and flora and the operation of Antarctic stations,

The Representatives recommend to their Governments that:

1. The Government of a country in which a tourist or other nonscientific expedition is being organized furnish notice of the expedition as soon as possible through diplomatic channels to any other Government whose station the expedition plans to visit;

2. A Government provide on request information as promptly as possible regarding the conditions upon which it would grant permission for tourist groups to visit Antarctic stations which it maintains; and

3. Such permission be withheld unless reasonable assurances are given of compliance with the provisions of the Treaty, the Recommendations then effective and the conditions applicable at stations to be visited.

IV – 28

NEXT MEETING

The Representatives recommend to their Governments that they accept the offer of the French Delegation to hold a Consultative Meeting under Article IX of the Antarctic Treaty in Paris in 1968, on a date to be agreed upon by the Consultative Governments.

[APPENDIX]

IV – 1

SPECIALLY PROTECTED AREAS: TAYLOR ROOKERY

The Representatives, considering that Taylor Rookery contains a colony of Emperor Penguins (*Aptenodytes forsteri*) which is one of the few, and probably the largest, of the known colonies of this species located wholly on land, recommend to their Governments that the following be inserted in Annex B, Specially Protected Areas, of the Agreed Measures for the Conservation of Antarctic Fauna and Flora:

SPECIALLY PROTECTED AREA N° 1

TAYLOR ROOKERY MAC. ROBERTSON LAND
Lat. 67°26′ S., Long. 60°50′ E.

DESCRIPTION: The area consists of the whole of the northernmost rock exposure on the eastern side of Taylor Glacier. The area is shown on the attached map.

IV – 2

SPECIALLY PROTECTED AREAS: ROOKERY ISLANDS

The Representatives, considering that Rookery Islands contain breeding colonies of all six bird species resident in the Mawson area, two of which, the Giant Petrel (*Macronectes giganteus*) and the Cape Pigeon (*Daption capensis*), occur nowhere else in the region and that it is of scientific importance to safeguard this unusual association of six species and to preserve a sample of their habitat, recommend to their Governments that the following be inserted in Annex B, Specially Protected Areas, of the Agreed Measures for the Conservation of Antarctic Fauna and Flora:

SPECIALLY PROTECTED AREA N° 2

ROOKERY ISLANDS, HOLME BAY
Lat. 67°37′ S., Long. 62°33′ E.

DESCRIPTION: The area, 7 nautical miles west of Mawson, comprises the islands and rocks lying within the rectangle marked on the attached map.

IV – 3

SPECIALLY PROTECTED AREAS: ARDERY ISLAND AND ODBERT ISLANDS

The Representatives, considering that Ardery Island and Odbert Island off the Budd Coast support several breeding species of petrel and provide a sample of their habitat and that two of these species, Antarctic Petrel (*Thalassoica antarctica*) and Antarctic Fulmar (*Fulmarus glacioloides*) are of particular scientific interest, recommend to their Governments that the following be inserted in Annex B, Specially Protected Areas, of the Agreed Measures for the Conservation of Antarctic Fauna and Flora:

SPECIALLY PROTECTED AREA N° 3

ARDERY ISLAND and ODBERT ISLAND, BUDD COAST
Lat. 66°22′ S., Long. 110°28′ E. and Lat. 66°22′ S., Long. 110°33′ E.

DESCRIPTION: The area consists of Ardery Island and Odbert Island which lie offshore in Vincennes Bay, 7 nautical miles south of Wilkes. The off-lying rocks are not included in the area. The area is shown on the attached map.

IV – 4

SPECIALLY PROTECTED AREAS: SABRINA ISLAND, BALLENY ISLANDS

The Representatives, considering that the Balleny Islands, as the most northerly Antarctic land in the Ross Sea region, supports fauna and flora which reflect many circumpolar distributions at this latitude and that Sabrina Island in particular provides a representative sample of such fauna and flora, recommend to their Governments that the following be inserted in Annex B, Specially Protected Areas, of the Agreed Measures for the Conservation of Antarctic Fauna and Flora:

SPECIALLY PROTECTED AREA N° 4

SABRINA ISLAND, BALLENY ISLANDS
Lat. 66°54′ S., Long. 163°20′ E.

DESCRIPTION: A small island some 2 kilometres south of Buckle Island in the Balleny Islands. The area is shown on the attached map.

IV – 5

SPECIALLY PROTECTED AREAS: BEAUFORT ISLAND, ROSS SEA

The Representatives, considering that Beaufort Island contains substantial and varied avifauna, that it is one of the most important breeding grounds in the region, and that it should be protected to preserve the natural ecological system as a reference area, recommend to their Governments that the following be inserted in Annex B, Specially Protected Areas, of the Agreed Measures for the Conservation of Antarctic Fauna and Flora:

SPECIALLY PROTECTED AREA N° 5

BEAUFORT ISLAND, ROSS SEA
Lat. 76°58′ S., Long. 167°03′ E.

DESCRIPTION: Beaufort Island measures 6 kilometres by 3 kilometres and is located 20 nautical miles north of Ross Island. The area is shown on the attached map.

IV – 6

SPECIALLY PROTECTED AREAS: CAPE CROZIER, ROSS ISLAND

The Representatives, considering that Cape Crozier supports a rich bird and mammal fauna as well as microfauna and microflora and that the ecosystem depends upon a substantial mixing of marine and terrestrial elements of outstanding scientific interest, recommend to their Governments that the following be inserted in Annex B, Specially Protected Areas, of the Agreed Measures for the Conservation of Antarctic Fauna and Flora:

SPECIALLY PROTECTED AREA N° 6

CAPE CROZIER, ROSS ISLAND
Lat. 77°32′ S., Long. 169°19′ E.

DESCRIPTION: The area comprises all the land on the coast of Ross Island east of a line joining the summits of Post Office Hill and Bomb Peak, north of a line which bears 90° True from Bomb Peak to the coast and northeast of a line which bears 315° True from Post Office Hill to the coast; the area is also deemed to include the locality occupied at any time by the rookery of Emperor Penguins (*Aptenodytes forsteri*) immediately adjacent thereto. Williamson Rock is also included in the area. The area is shown on the attached map.

IV – 7

SPECIALLY PROTECTED AREAS: CAPE HALLETT, VICTORIA LAND

The Representatives, considering that Cape Hallett includes a small patch of particularly rich and diverse vegetation which supports a variety of terrestrial fauna and that the ecosystem, which includes a rich avifauna, is of outstanding scientific interest, recommend to their Governments that the following be inserted in Annex B, Specially Protected Areas, of the Agreed Measures for the Conservation of Antarctic Fauna and Flora:

SPECIALLY PROTECTED AREA N° 7

CAPE HALLETT, VICTORIA LAND
Lat. 72°81′ S., Long., 170°19′ E.

DESCRIPTION: The area between the eastern side of the road, which runs along the eastern side of Willett Cove, and the western margin of the permanent ice sheet, to the south of a line from the road to the margin of the permanent ice sheet at the latitude of the head of Willett Cove, and to the north of a line from the road to the margin of the permanent ice sheet drawn 350 metres to the south of that latitude and parallel to it. The area is shown on the attached map.

IV – 8

SPECIALLY PROTECTED AREAS: DION ISLANDS

The Representatives, considering that amongst the Dion Islands is found the only colony of Emperor Penguins (*Aptenodytes forsteri*) known to exist on the west side of the Antarctic Peninsula and that the isolation of this colony from others of the same species makes it of outstanding scientific interest, recommend to their Governments that the following be inserted in Annex B, Specially Protected Areas, of the Agreed Measures for the Conservation of Antarctic Fauna and Flora:

SPECIALLY PROTECTED AREA N° 8

DION ISLANDS, MARGUERITE BAY, ANTARCTIC PENINSULA
Lat. 67°52′ S., Long., 68°43′ W.

DESCRIPTION: A group of small, rocky, low-lying islands in Marguerite Bay, about 15 kilometres south of Adelaide Island. The area is shown on the attached map.

IV – 9

SPECIALLY PROTECTED AREAS: GREEN ISLAND

The Representatives, considering that the vegetation on Green Island is exceptionally rich, that it is probably the most luxuriant anywhere on the west side of the Antarctic Peninsula, that in some places the humus is 2 metres thick and that this area, being of outstanding scientific interest, should be protected because it is probably one of the most diverse Antarctic ecosystems, recommend to their Governments that the following be inserted in Annex B, Specially Protected Areas, of the Agreed Measures for the Conservation of Antarctic Fauna and Flora:

SPECIALLY PROTECTED AREA N° 9

GREEN ISLAND, BERTHELOT ISLANDS, ANTARCTIC PENINSULA
Lat. 65°19′ S., Long., 64°10′ W.

DESCRIPTION: A small island, measuring about 600 metres by 400 metres, situated 150 metres to the north of the largest of the Berthelot Islands. The area is shown on the attached map.

IV – 10

SPECIALLY PROTECTED AREAS: BYERS PENINSULA

The Representatives, considering that Byers Peninsula supports a considerable diversity of plant and animal life, including many invertebrates, that a substantial population of Elephant Seals (*Mirounga leonina*) and small colonies of Fur Seals (*Arctocephalus sp.*) are found on the beaches, that Fur Seals breed on Window Island and that the close association of such a large variety of Antarctic plants and animals within a relatively small area is of outstanding scientific interest, recommend to their Governments that the following be inserted in Annex B, Specially Protected Areas, of the Agreed Measures for the Conservation of Antarctic Fauna and Flora:

SPECIALLY PROTECTED AREA N° 10

BYERS PENINSULA, LIVINGSTON ISLAND, SOUTH SHETLAND ISLANDS
Lat. 62°38′ S., Long. 61°05′ W.

DESCRIPTION: The ice-free peninsula lying to the west of the western margin of the permanent ice sheet on Livingston Island. The five small ice-free areas on the south coast immediately to the east are also included. Window Island is included within the area, but no other off-lying islands and rocks. The area is shown on the attached map.

IV – 11

SPECIALLY PROTECTED AREAS: CAPE SHIRREFF

The Representatives, considering that Cape Shirreff supports a considerable diversity of plant and animal life, including many invertebrates, that a substantial population of Elephant Seals (*Mirounga leonina*) and small colonies of Fur Seals (*Arctocephalus sp.*) are found on the beaches and that the area is of outstanding scientific interest, recommend to their Governments that the following be inserted in Annex B, Specially Protected Areas, of the Agreed Measures for the Conservation of Antarctic Fauna and Flora:

SPECIALLY PROTECTED AREA N° 11

CAPE SHIRREFF, LIVINGSTON ISLAND, SOUTH SHETLAND ISLANDS
Lat. 62°28′ S., Long. 60°48′ W.

DESCRIPTION: The ice-free peninsula lying to the north of the northern margin of the permanent ice sheet on Livingston Island, between Barclay Bay and Hero Bay. The area is shown on the attached map.

IV – 12

SPECIALLY PROTECTED AREAS: FILDES PENINSULA

The Representatives, considering that Fildes Peninsula is a biologically diverse region with numerous small lakes which are ice-free in summer, that it provides a representative sample of the South Shetland Islands and is an area of outstanding ecological interest, recommend to their Governments that the following be inserted in Annex B, Specially Protected Areas, of the Agreed Measures for the Conservation of Antarctic Fauna and Flora:

SPECIALLY PROTECTED AREA N° 12

FILDES PENINSULA, KING GEORGE ISLAND, SOUTH SHETLAND ISLANDS
Lat. 62°12′ S., Long. 58°58′ W.

DESCRIPTION: The ice-free peninsula lying to the northwest of Maxwell Bay and west of the margin of the permanent ice sheet of King George Island including Ardley Island but no other off-lying islands or rocks. The area is shown on the attached map.

IV – 13

SPECIALLY PROTECTED AREAS: MOE ISLAND

The Representatives, considering that Moe Island provides a representative sample of the maritime Antarctic ecosystem, that intensive experimental research on the neighbouring Signy Island may alter its ecosystem and that Moe Island should be specially protected as a control area for future comparison, recommend to their Governments that the following be inserted in Annex B, Specially Protected Areas, of the Agreed Measures for the Conservation of Antarctic Fauna and Flora:

SPECIALLY PROTECTED AREA N° 13

MOE ISLAND, SOUTH ORKNEY ISLANDS
Lat. 60°45′ S., Long. 45°41′ W.

DESCRIPTION: A small island, about 1 kilometre long and 1 kilometre across, lying about 500 metres south-west of Signy Island, South Orkney Islands. The off-lying rocks are not included in the area. The area is shown on the attached map.

IV – 14

SPECIALLY PROTECTED AREAS: LYNCH ISLAND

The Representatives, considering that Lynch Island supports one of the most extensive and dense areas of grass (*Deschampsia antarctica*) known in the Treaty Area and that it provides an outstanding example of a rare natural ecological system, recommend to their Governments that the following be inserted in Annex B, Specially Protected Areas, of the Agreed Measures for the Conservation of Antarctic Fauna and Flora:

SPECIALLY PROTECTED AREA N° 14

LYNCH ISLAND, SOUTH ORKNEY ISLANDS
Lat. 60°40′ S., Long. 45°38′ W.

DESCRIPTION: A small island, measuring about 500 metres by 300 metres, in Marshall Bay, off the south coast of Coronation Island, South Orkney Islands. The area is shown on the attached map.

IV – 15

SPECIALLY PROTECTED AREAS: SOUTHERN POWELL ISLAND AND ADJACENT ISLANDS

The Representatives, considering that southern Powell Island and the adjacent islands support substantial vegetation and a considerable bird and mammal fauna which is representative of the natural ecology of the South Orkney Islands and which is rendered more important by the presence of the nucleus of an expanding colony of Fur Seals (*Arctocephalus tropicalis gazella*), recommend to their Governments that the following be inserted in Annex B, Specially Protected Areas, of the Agreed Measures for the Conservation of Antarctic Fauna and Flora:

SPECIALLY PROTECTED AREA N° 15

SOUTHERN POWELL ISLAND AND ADJACENT ISLANDS, SOUTH ORKNEY ISLANDS
Lat. 60°45′ S., Long., 45°02′ W.

DESCRIPTION: This area in the central South Orkney Islands includes that part of Powell Island which is south of the latitude of the southern summit of John Peaks, together with the whole of Fredriksen Island, Michelsen Island, Christoffersen Island, Grey Island and the unnamed islands lying within the rectangle marked on the attached map.

IV – 16

SPECIALLY PROTECTED SPECIES: FUR SEALS

The Representatives recommend to their Governments that the following be inserted in Annex A, Specially Protected Species, of the Agreed Measures for the Conservation of Antarctic Fauna and Flora:

"All species of the genus *Arctocephalus*, Fur Seals."

IV – 17

SPECIALLY PROTECTED SPECIES: ROSS SEAL

The Representatives recommend to their Governments that the following species be inserted in Annex A, Specially Protected Species, of the Agreed Measures for the Conservation of Antarctic Fauna and Flora:

"*Ommatophoca rossi*, Ross Seal."

IV – 18

COOPERATION IN IMPLEMENTING ARTICLE VI OF THE AGREED MEASURES FOR THE CONSERVATION OF ANTARCTIC FAUNA AND FLORA

(RECOMMENDATION III – VIII)

The Representatives, taking into consideration Article VI of the Agreed Measures for the Conservation of Antarctic Fauna and Flora (Recommendation III–VIII), recommend to their Governments that in cases where expeditions of more than one Participating Government may be working in the same region of the Treaty Area, the Governments involved should arrange to cooperate as far as practicable in limiting the issuance of permits in accordance with Article VI to ensure that the total number of native mammals and birds killed or captured accords with the requirements of paragraphs 4 and 7 (b) of Article VI and paragraph 4 (b) of Article VIII of the Agreed Measures.

IV – 19

IMPLEMENTATION OF ARTICLE XII (1) (d) OF THE AGREED MEASURES

The Representatives recommend to their Governments that for the effective implementation of the provisions of Article XII of the Agreed Measures for the Conservation of Antarctic Fauna and Flora, documents exchanged annually by Participating Governments on the matters set down in paragraph 1 (a) of that Article should follow the pattern of the form annexed hereto.

Recognizing the role of the Scientific Committee on Antarctic Research (SCAR) as defined in Recommendation I–IV, the Representatives further welcome the decision of SCAR to study the status of species, their need for protection and numbers of each species which might be harvested for food, study or other uses, as outlined in paragraph 1 (b) and (c) of Article XII of the Agreed Measures.

ANTARCTIC TREATY AREA

ANNUAL RETURN OF SPECIES KILLED OR CAPTURED (1 JULY _____ TO 30 JUNE _____)
year year

BY _____
country

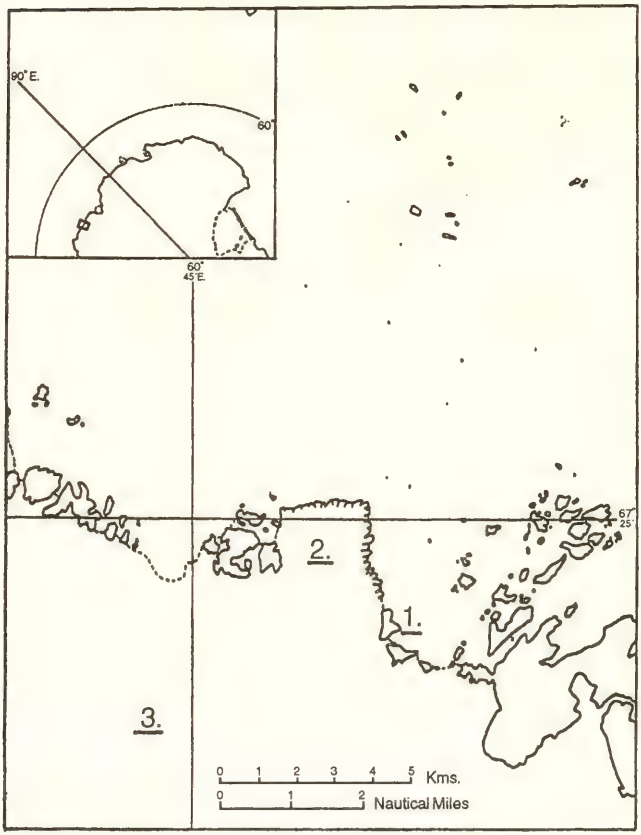
USE A SEPARATE FORM FOR EACH LOCALITY

LOCALITY (1) _____ LAT _____ LONG _____
name

SPECIES	SEX	AGE	NUMBER KILLED FOR			(5) NUMBER CAPTURED & REMOVED FOR		NUMBER CAPTURED AND RELEASED
(2)	(3)	(4)	food	Scientific purposes	museums, etc.	Scientific purposes	zoos, etc.	(6)

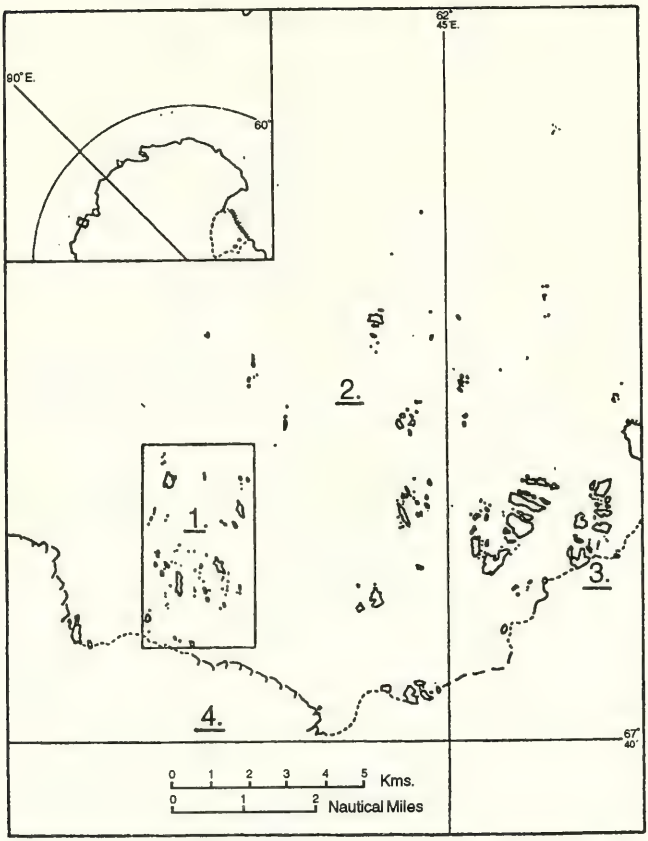
NOTES: (1) Define as precisely as possible. Analysis will not be possible if the localities are too large.
(2) Use scientific name.
(3) Enter "M" for Male, "F" for Female or "U" if sex is unknown.
(4) Enter year class, if known, otherwise "A" for Adult or "J" for Juvenile.
(5) Removed from the Treaty Area.
(6) Enter in this column the numbers of species removed from one locality and released elsewhere in the Treaty Area.

Map accompanying Recommendation IV–1
Specially Protected Area No. 1



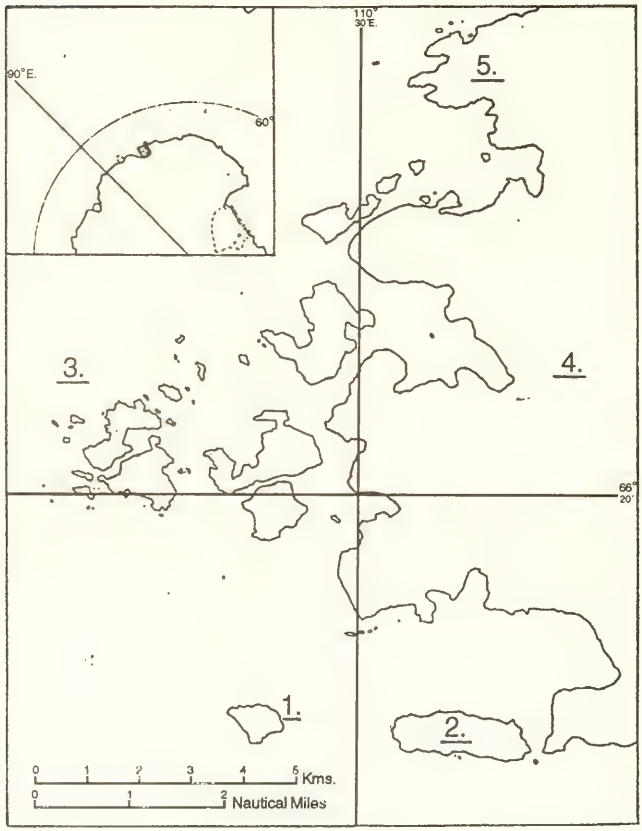
1. Taylor Rookery
2. Taylor Glacier
3. Mac. Robertson Land

Map accompanying Recommendation IV–2
Specially Protected Area No. 2



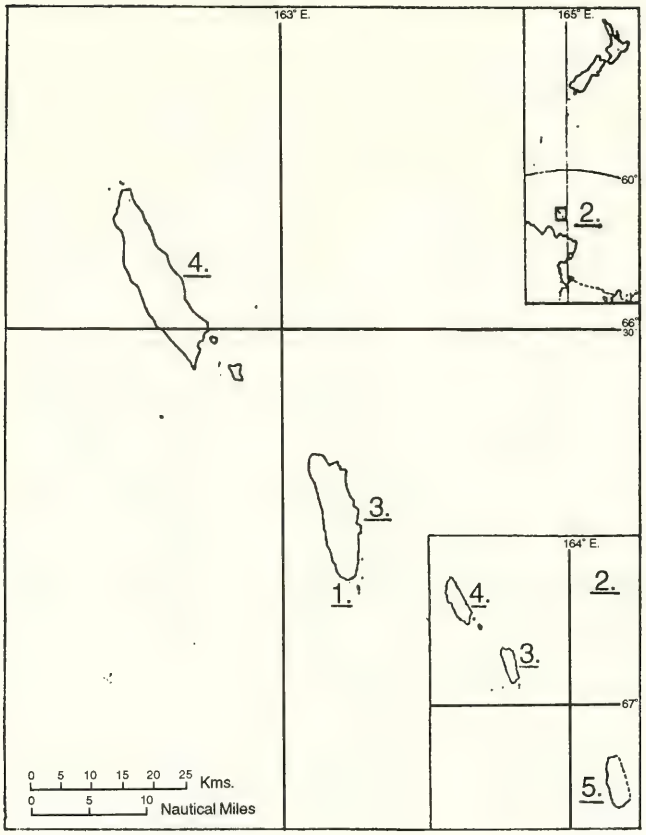
1. Rookery Islands
2. Holme Bay
3. Mawson
4. Mawson Coast

Map accompanying Recommendation IV–3
Specially Protected Area No. 3



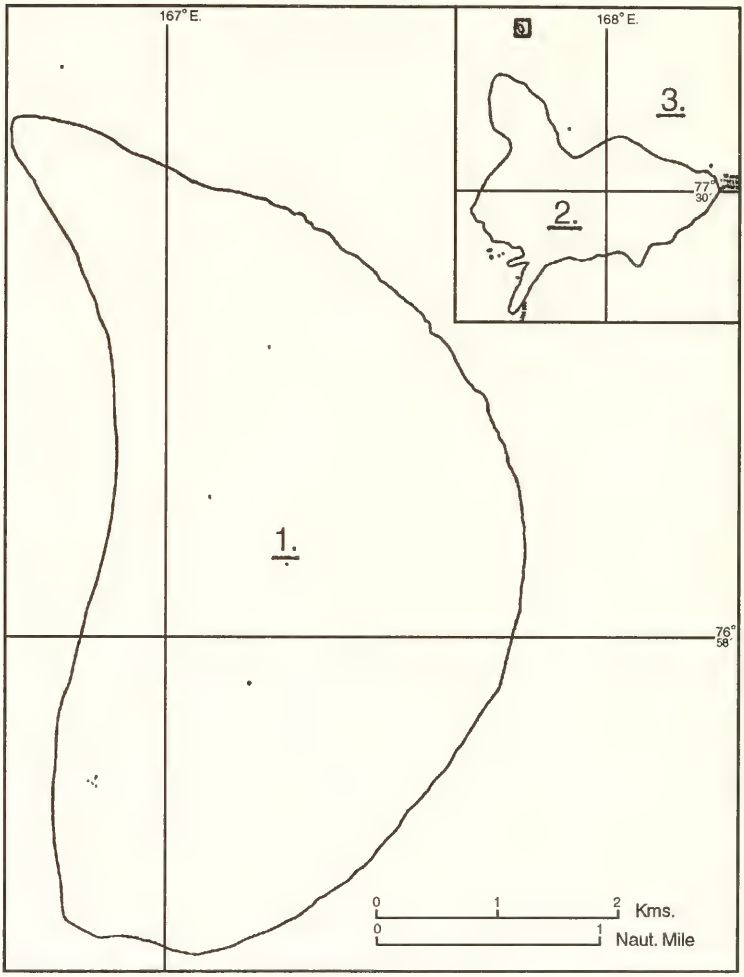
1. Ardery Island
2. Odbert Island
3. Vincennes Bay
4. Budd Coast
5. Wilkes Station

Map accompanying Recommendation IV–4
Specially Protected Area No. 4



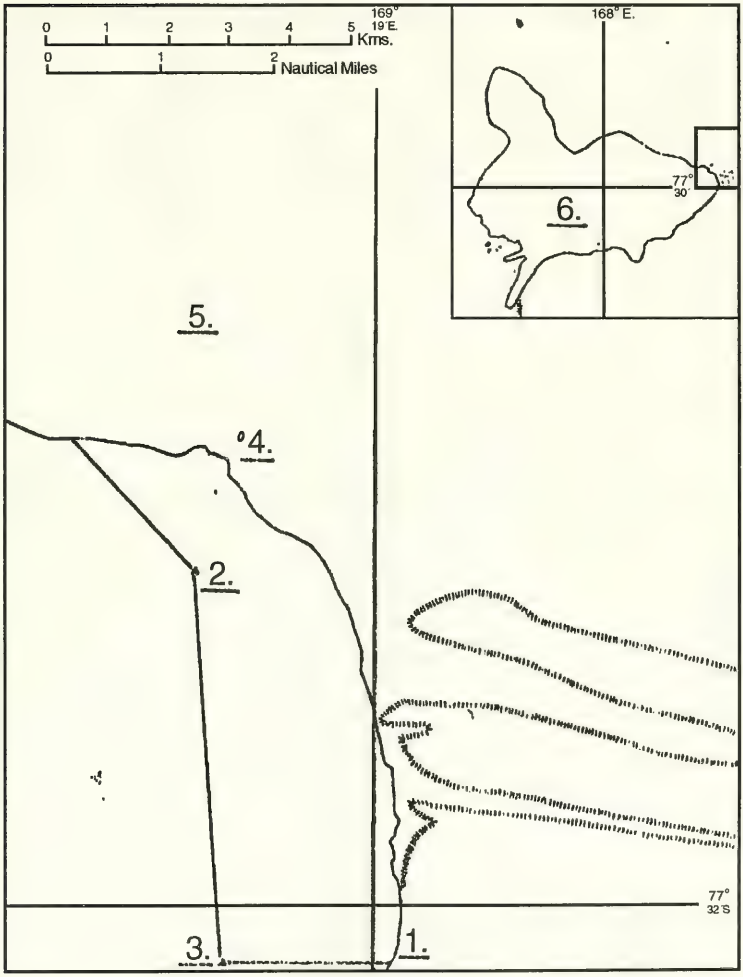
1. Sabrina Island
2. Balleny Islands
3. Buckle Island
4. Young Island
5. Sturge Island

Map accompanying Recommendation IV–5
Specially Protected Area No. 5



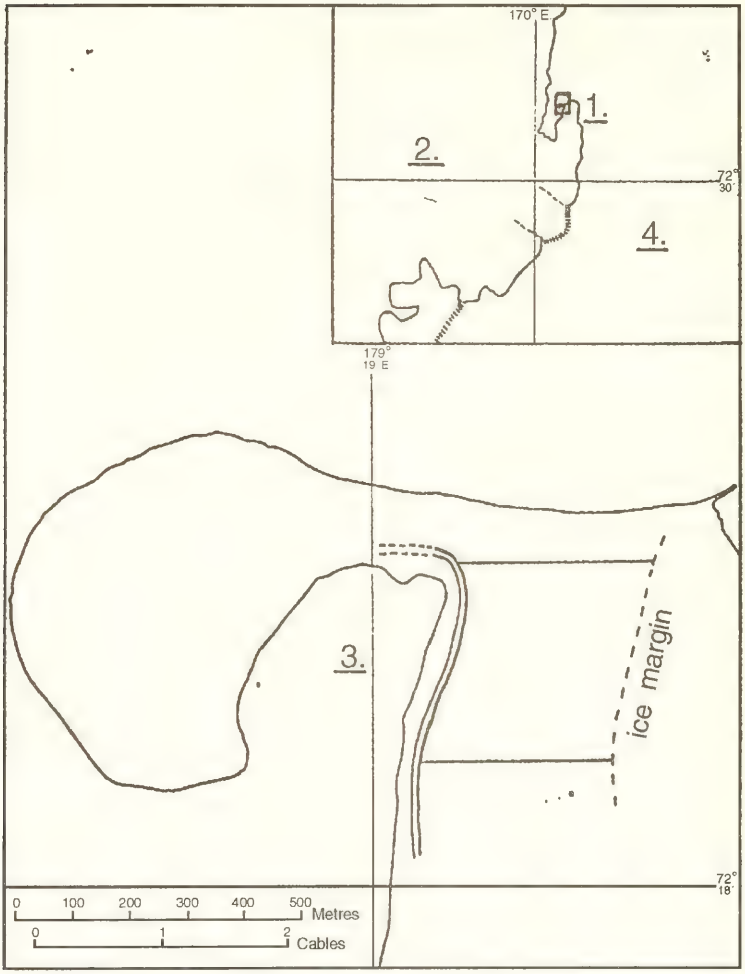
1. Beaufort Island
2. Ross Island
3. Ross Sea

Map accompanying Recommendation IV–6
Specially Protected Area No. 6



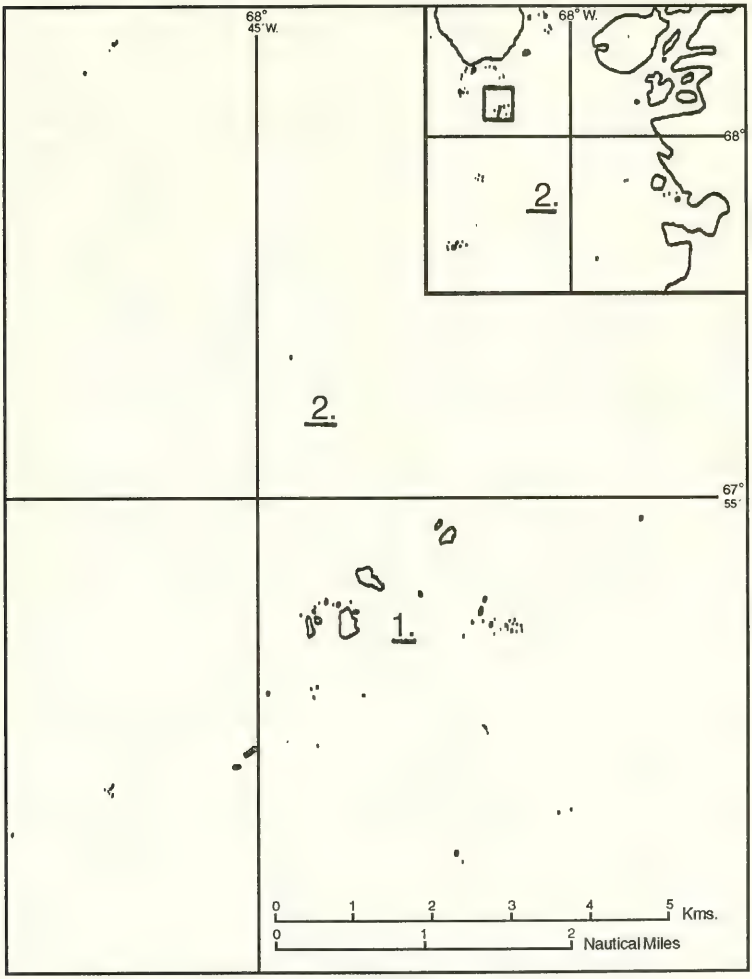
1. Cape Crozier
2. Post Office Hill
3. Bomb Peak
4. Williamson Rock
5. Ross Sea
6. Ross Island

Map accompanying Recommendation IV–7
Specially Protected Area No. 7



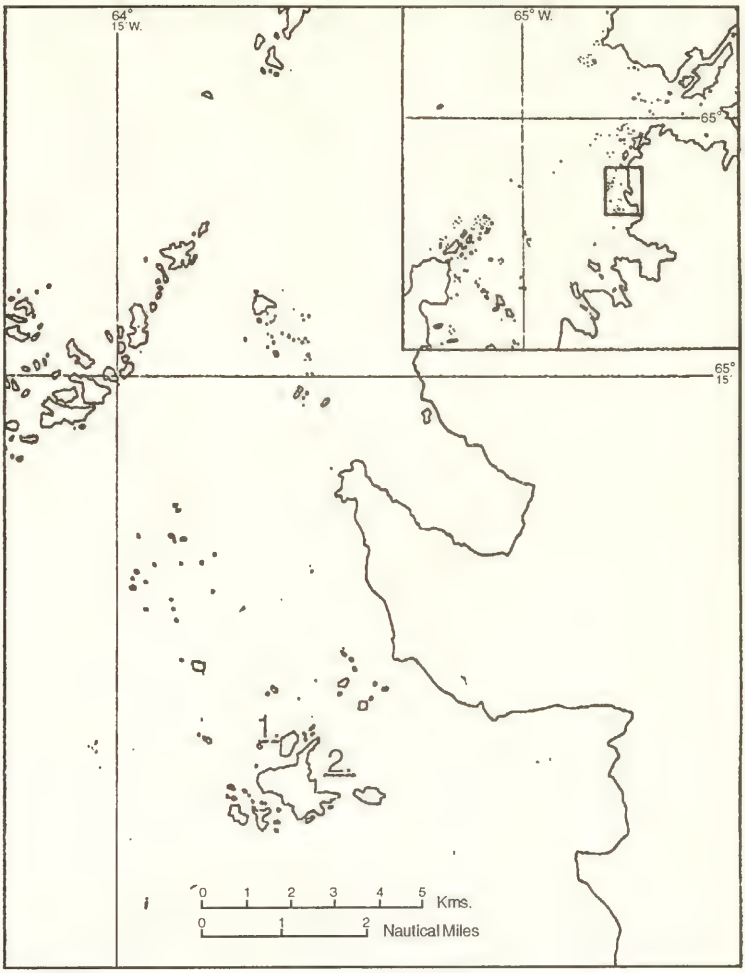
1. Cape Hallet
2. Victoria Land
3. Willet Cove
4. Ross Sea

Map accompanying Recommendation IV–8
Specially Protected Area No. 8



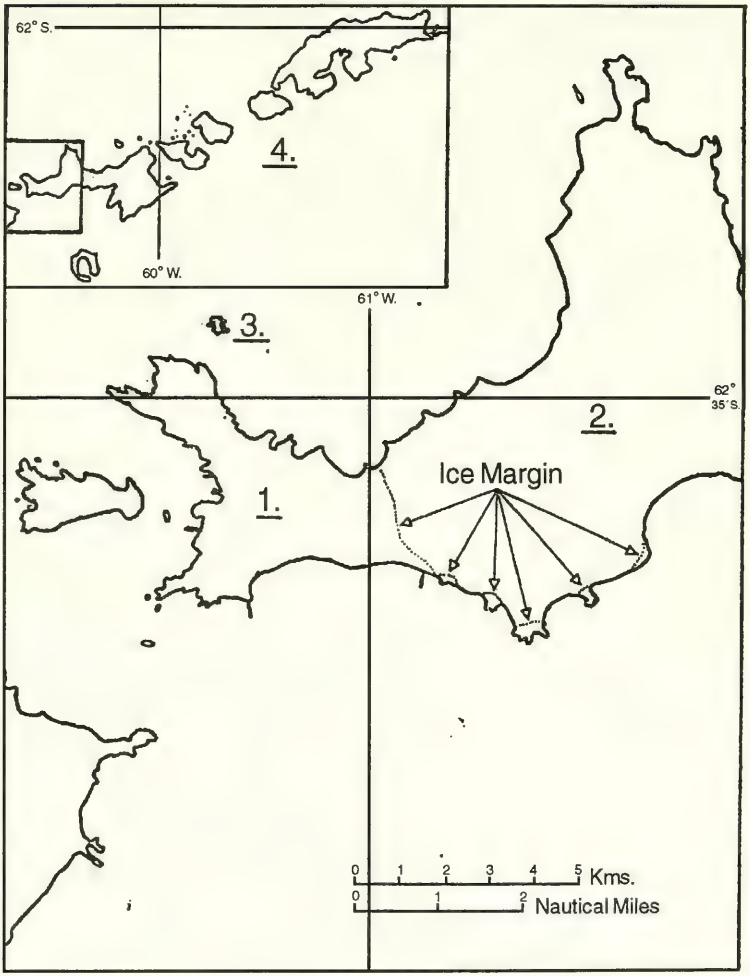
1. Dion Islands
2. Marguerite Bay

Map accompanying Recommendation IV–9
Specially Protected Area No. 9



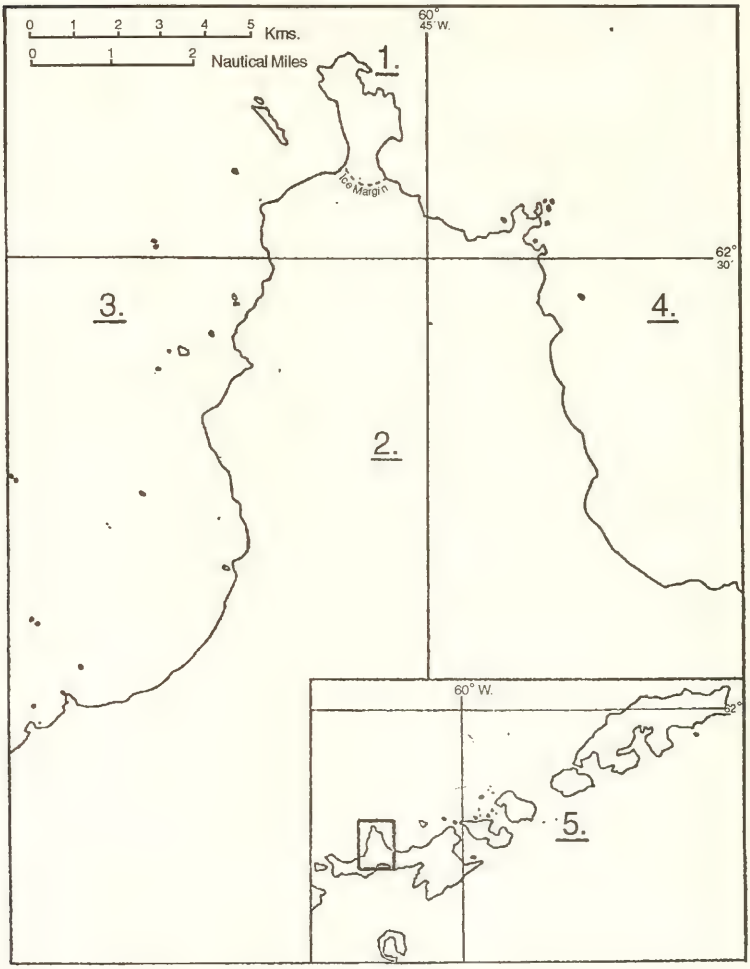
1. Green Island
2. Berthelot Islands

Map accompanying Recommendation IV–10
Specially Protected Area No. 10



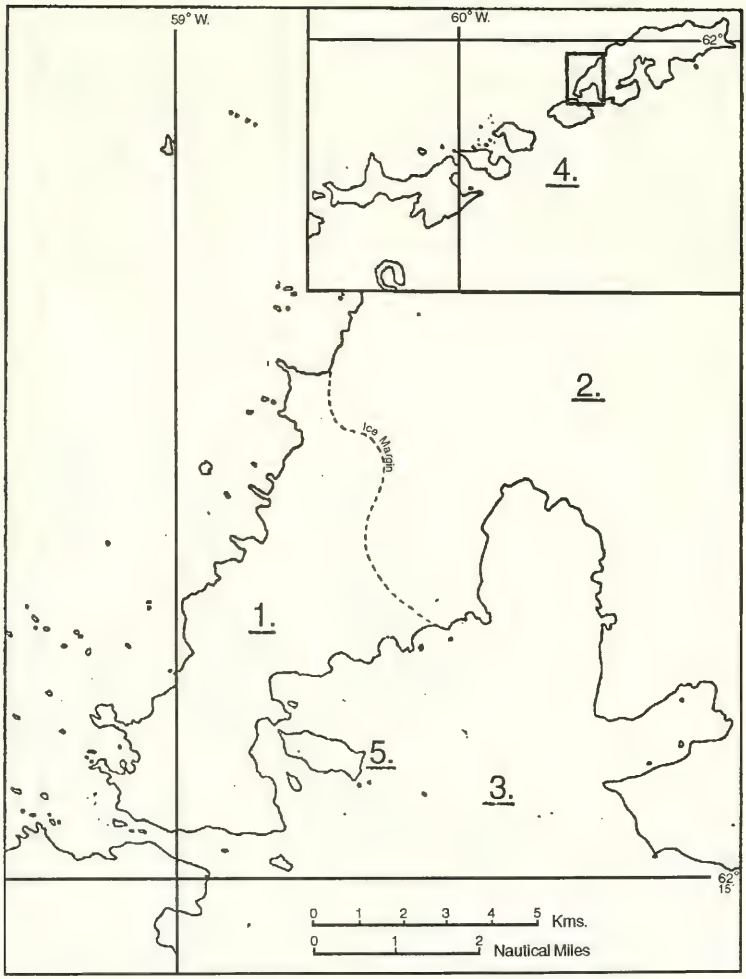
1. Byers Peninsula
2. Livingston Island
3. Window Island
4. South Shetland Islands

Map accompanying Recommendation IV-11
Specially Protected Area No. 11



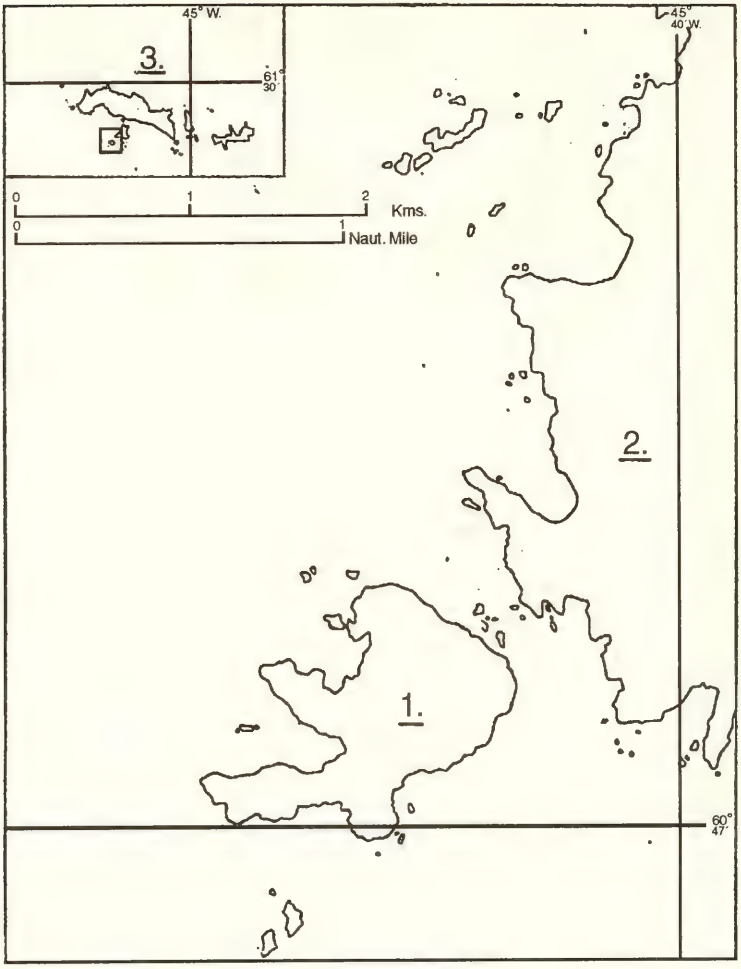
1. Cape Shirreff
2. Livingston Island
3. Barclay Bay
4. Hero Bay
5. South Shetland Islands

Map accompanying Recommendation IV–12
Specially Protected Area No. 12



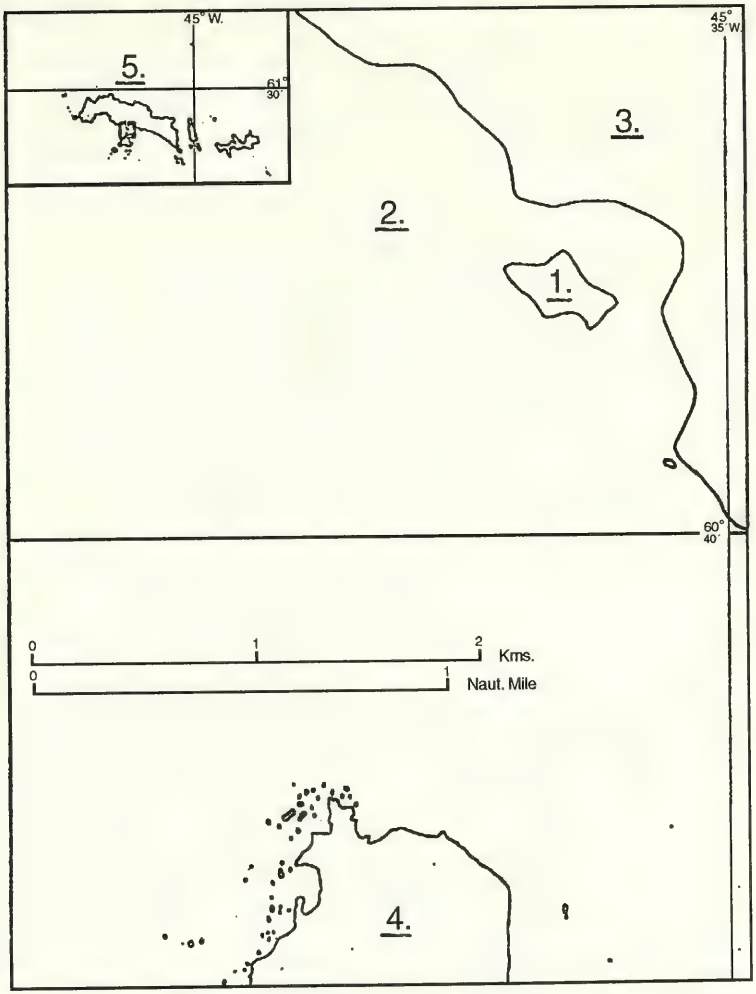
1. Fildes Peninsula
2. King George Island
3. Maxwell Bay
4. South Shetland Islands
5. Ardley Island

Map accompanying Recommendation IV–13
Specially Protected Area No. 13



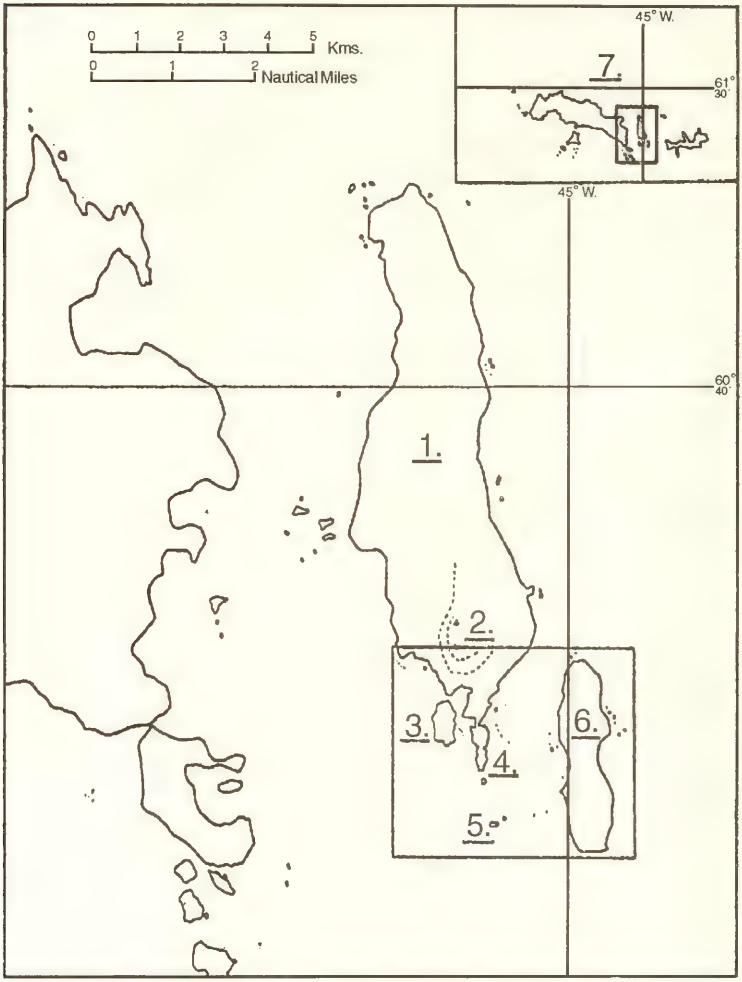
1. Moe Island
2. Signy Island
3. South Orkney Islands

Map accompanying Recommendation IV–14
Specially Protected Area No. 14



1. Lynch Island
2. Marshall Bay
3. Coronation Island
4. Signy Island
5. South Orkney Islands

Map accompanying Recommendation IV–15
Specially Protected Area No. 15



1. Powell Island
2. John Peaks
3. Christoffersen Island
4. Michelsen Island
5. Grey Island
6. Fredriksen Island
7. South Orkney Islands

Measures Approved or Recommended Under Article IX in Furtherance of Principles and Objectives of the Antarctic Treaty, Paris, 1968

Adopted at Paris 29 November 1968

*Recommendations V-1 through V-4 and V-9 effective 26 May 1972; Recommendations V-7 and V-8 effective 31 July 1972; Recommendations V-5 and V-6 effective 1 November 1982**

Primary source citation: 24 UST 1793, TIAS 7692

[CERTAIN RECOMMENDATIONS OF THE FIFTH ANTARCTIC TREATY CONSULTATIVE MEETING]

Recommendation V–1

COMMEMORATIVE STAMP ISSUE

The Representatives recommend to their governments:

1) that, on the occasion of the Tenth anniversary of the entry into force of the Antarctic Treaty, each Consultative Party should issue a commemorative postage stamp during 1971;

2) that this stamp should bear, in the language or languages of each issuing country, the following words:

"Antarctic Treaty 1961 — 1971";

3) that the most prominent feature of the stamp should be the Antarctic Treaty emblem representing a map of Antarctica which appears on the official documents of Consultative Meetings;

4) that any additional matter should be consonant with the provisions and the spirit of the Antarctic Treaty;

5) that the denomination of the stamp should remain at the discretion of each issuing country.

* Recommendation V-5 was terminated by Recommendation VIII-2 (see page 128).

Recommendation V–2

MEASURES FOR IMPROVING ANTARCTIC TELECOMMUNICATIONS

Recognizing the need for improving the collection and distribution of meteorological data and other scientific information and for further improving Antarctic telecommunications;

Considering the views of the World Meteorological Organization, as expressed at the 18th and 20th Sessions of the WMO Executive Committee, on the desirability of setting up Antarctic Meteorological Centres and of determining provisionally their functions;

Supporting the principle of the World Weather Watch;

Considering the intention of some governments voluntarily to create, within a few years, such Antarctic Meteorological Centres at their Stations;

The Representatives recommend to their governments that:

1. In view of the valuable information provided by WMO and SCAR to Consultative Parties, they continue to cooperate with the WMO through their Representatives thereto and with SCAR through their National Committees in defining future scientific requirements.

2. They consider the usefulness of creating Antarctic Meteorological Centres in the Antarctic.

3. They hold a meeting of telecommunications experts at Buenos Aires, Argentina, between 15 August and 15 September 1969, in accordance with Recommendation IV–24. The date of this meeting should be arranged through diplomatic channels, taking into account relevant meetings of other international organizations which will be held in 1969 and the time required to translate and distribute the documents from such meetings.

4. Although it is expected that all Consultative Parties will participate, the meeting in Buenos Aires may proceed without the participation of them all provided all the Consultative Parties agree to that procedure and to the provisional agenda. All Consultative Parties will communicate before 1 June 1969 to the host government their intentions as to sending experts. Proposals emanating from the meeting will be sent to all Consultative Parties for their consideration.

5. One expert each from WMO, ITU, IOC and SCAR should be invited to attend as observers. Invited observers may submit documents and make statements with the permission of the Chairman but they may not vote. All experts from Consultative Parties attending will be members of their delegations.

6. The agenda for the meeting should be determined by the Consultative Parties through diplomatic channels and the agreed provisional agenda will be circulated by the host government through diplomatic channels one month prior to the opening of the meeting.

7. The results of the meeting should take the form of proposals on telecommunications unanimously agreed by the delegations of the Consultative Parties participating in the meeting. These will be circulated by the host government to all Consultative Parties for consideration. These proposals will constitute the report of the meeting. Other conference documents may be appended for information as annexes to the report with the consent of all delegations present. The proposals would not become measures under Article IX of the Antarctic Treaty but any Consultative Parties may submit any matter arising from this meeting to a subsequent Consultative Meeting.

8. Information should be exchanged through diplomatic channels on the following aspect of telecommunications procedures at least one month prior to the opening of the Meeting:

   (i) existing networks, traffic loads and channel capacity on each route;

   (ii) shortcomings in existing networks and channels;

(iii) present traffic carried on each route

a) Administrative and operational traffic

b) Meteorological traffic

c) Other scientific traffic;

(iv) existing time schedules for meteorological transmission

a) Broadcast

b) Point to point traffic

9. The fields of discussion at the meeting should include, inter alia:

(i) New telecommunications traffic requirements submitted by Consultative Parties, WMO, IOC and SCAR, the capacity of the existing facilities and the effect of these new requirements on the existing facilities, taking into account the report of the Antarctic Treaty Meeting on Telecommunications held in Washington in 1963 and present prevailing conditions;

(ii) Estimates or requirements for the near future and further projections if possible;

(iii) Procedure for amending telecommunications arrangements from time to time to meet changing conditions;

(iv) New telecommunications techniques which might be introduced into the Antarctic to meet future requirements;

(v) Preparation of a standard format for the exchange of information on telecommunications facilities under Article VII of the Antarctic Treaty.

Recommendation V–3

SOUTHERN OCEAN

The Representatives,

Considering that the Southern Ocean is an integral part of the Antarctic environment and that the Consultative Governments have made substantial contributions towards knowledge of this ocean in the Treaty Area,

Noting that Resolution 5 of the Vth Session of the Intergovernmental Oceanographic Commission (IOC) established a Co-ordination Group for the Southern Ocean and that the terms of reference for this group include plans for the gradual development of a comprehensive study of the Southern Ocean;

Noting further the significant contribution which the Scientific Committee on Antarctic Research (SCAR) has made to these studies and that SCAR is invited to participate in the Coordination Group as an observer;

Welcome the proposed study of the Southern Ocean by the IOC with the participation of SCAR as well as other interested scientific organizations;

Recommend to their governments that they encourage SCAR through their National Committees to continue its interest in scientific matters related to the Southern Ocean and to make available scientific advice as appropriate to the IOC Co-ordination Group in order to aid in its development of plans for the comprehensive study of the Southern Ocean.

Recommendation V–4

HISTORIC MONUMENTS

The Representatives

Recalling Recommendation I–9,

Recommend to their governments:

1) that a list of historic monuments which should be preserved be drawn up;

2) that each government circulate a list of historic monuments through diplomatic channels to other Consultative Governments;

3) that this subject be considered further at the next Consultative Meeting;

4) that, in the meantime, they do what is feasible to ensure the survival as far as possible of any historic monument which has been included on any list circulated under paragraph 2.

Recommendation V–7

CONCERNING THE PROPOSALS OF SCAR FOR THE REVISION OF THE INTERIM GUIDE LINES FOR THE VOLUNTARY REGULATION OF ANTARCTIC PELAGIC SEALING

Taking into account the importance of conserving seals south of 60° South Latitude;

Considering that in the future an international Convention for the regulation of Antarctic pelagic sealing may be required;

The Representatives recommend to their governments that, when implementing Recommendation IV–21, and until a decision is taken on the conclusion of an international Convention, they should voluntarily take account of the proposals of SCAR in its report to National Antarctic Committees in 1968 on the modification of the "Interim Guide Lines for the Voluntary Regulation of Antarctic Pelagic Sealing", as appended in a revised form to the Report of the Fifth Antarctic Treaty Consultative Meeting.

Recommendation V–8

EXAMINATION OF A DRAFT CONVENTION FOR THE REGULATION OF ANTARCTIC PELAGIC SEALING

The Representatives,

Having had a preliminary exchange of views at the Fifth Consultative Meeting on the draft Convention for the Regulation of Antarctic Pelagic Sealing annexed to the Final Report of the Meeting,

Recognising the need to study the preparation of such a Convention,

Recommend to their governments that, before the next Consultative Meeting, they study the draft Convention with a view to its consideration at that Meeting.

Recommendation V-9

SIXTH ANTARCTIC TREATY CONSULTATIVE MEETING

The Representatives recommend to their governments that they accept the offer by the Delegation of Japan to hold the Sixth Consultative Meeting under Article IX of the Antarctic Treaty in Tokyo, on a date in 1970 to be mutually decided upon by the Consultative Governments.

ANNEX 1

MODIFIED VERSION OF THE REPORT OF 1968 TO NATIONAL ANTARCTIC COMMITTEES BY THE SCIENTIFIC COMMITTEE ON ANTARCTIC RESEARCH (SCAR)

1. The total number of seals of each species taken in the area south of 60° South Latitude should not exceed the number for that species set so as to bring the population to, or maintain it at, the level giving the optimum sustainable yield.

2. The number will be set in the light of the best available scientific evidence, and will be revised at regular intervals. The best present advice regarding numbers is given in Annex A.

3. A seal should not be killed or taken when it is in the water.

4. The Ross Seal (*Ommatophoca rossi*), the Elephant Seal (*Mirounga leonina*), and fur seals of the genus *Arctocephalus* should not be killed or taken, except in an emergency or in accordance with a permit.

5. Within the period specified in Annex C, no Weddell Seal (*Leptonychotes weddelli*) one year old, or older, should be killed or taken, except in an emergency or in accordance with a permit.

6. For the purposes of these Guide Lines, the area south of 60° South Latitude should be divided into the Sealing Zones set out in Annex B. No seals should be killed or taken except in the zones and at the times specified in Annex B. However, a permit may be issued in accordance with paragraph 9.

7. No seals should be killed or taken within the closed season designated in Annex C, other than in an emergency or in accordance with a permit.

8. Within the zones established in Annex B, any area that forms a seal breeding area or is the site of long-term scientific research on seals may be declared a Seal Reserve by governments. Such Seal Reserves are listed in Annex D. Within any Seal Reserve seals should not be killed or taken except in an emergency or in accordance with a permit.

9. Permits should be issued only for the following purposes:

   (i) to provide indispensable food for men or dogs in limited quantities and in conformity with the purposes and principles of the Agreed Measures for the Conservation of Antarctic Fauna and Flora and these Guide Lines,

   (ii) to provide specimens for scientific study or scientific information, or

   (iii) to provide specimens for museums, educational or cultural institutions.

10. Each government should provide the other governments before 31 October of each year with the information relating to the preceding period of 1 July to 30 June specified in Annex E.

11. At the same time, each government should provide to the other governments information on any steps it has taken in accordance with these Guide Lines.

12. When it appears to any government that the harvest of any species of seal in the area South of 60° South Latitude is having a significant effect on the stocks therein, or in any locality is disturbing the ecological system therein, that Government may propose through diplomatic channels that a Consultative Meeting shall be convened under Article IX of the Antarctic Treaty. If all Consultative Parties so agree, such a meeting will be convened as soon as possible to consider the situation and the steps it may be necessary to take.

ANNEX A. PERMISSIBLE CATCH

With present information it is not possible to give figures for the optimum sustainable yield, or for the levels of population which would provide such yields. Such figures can only be estimated with any useful precision from the analysis of the populations after they have been exposed to exploitation for a period.

It is suggested that if catches do not exceed the following safety levels until the results of such analysis are available, then the populations will not be reduced below the level giving the optimum yield.

Crabeater Seals (*Lobodon carcinophagus*) 200,000 individuals in any one year

Leopard Seals (*Hydrurga leptonyx*) 15,000 individuals in any one year

Weddell Seals (*Leptonychotes weddelli*) 10,000 individuals in any one year

ANNEX B. SEALING ZONES

1. The following Sealing Zones, corresponding with those used by the whaling industry, are designated:

   Zone 1 Between 60° and 120° West Longitude
   Zone 2 Between 0° and 60° West Longitude together with that part of the Weddell Sea lying westwards of 60° West Longitude.
   Zone 3 Between 0° and 70° East Longitude
   Zone 4 Between 70° and 130° East Longitude
   Zone 5 Between 130° East Longitude and 170° West Longitude
   Zone 6 Between 120° and 170° West Longitude.

2. During the season 1969–1970, being the first season to which these Guide Lines apply, no sealing should be permitted in Zone 1. In the second season of application, Zone 2 should be closed to sealing, and thereafter each zone should be closed for a season in sequence.

ANNEX C. CLOSED SEASONS

1. The period between 1 March and 31 August inclusive is a Closed Season.

2. No Weddell Seal (*Leptonychotes weddelli*) one year old or older should be killed or taken between 1 September and 15 December inclusive.

ANNEX D. SEAL RESERVES

The following areas are declared Seal Reserves:

1. The area between 60°20′ and 60°56′ South Latitude and 44°05′ and 46°25′ West Longitude, including the South Orkney Island.

2. The area of the south-western Ross Sea south of 76° South Latitude and west of 170° East Longitude, including Ross Island.

3. The area of Edisto inlet south and west of a line drawn between Cape Hallett (72°19'S.: 170°18'E) and Helm Point (72°11'S.: 170°00'E).

ANNEX E. EXCHANGE OF INFORMATION

1. Each government should provide to other governments statistical information on all seals taken within the area to which Guide Lines relate.

2. This information should include the number of adult individuals and pups of each species killed or taken during each operating day specifying in which of the Zones set out in Annex B they have been killed or taken.

[APPENDIX]

Recommendation V–5

SPECIALLY PROTECTED AREA: FILDES PENINSULA

The Representatives, considering that Fildes Peninsula has several small lakes which, being ice-free in summer, are of outstanding ecological interest and that the most interesting one of them should be specially protected, recommend to their governments that, in place of the description in Recommendation IV–12 , the following be inserted in Annex B, Specially Protected Areas, of the Agreed Measures for the Conservation of Antarctic Fauna and Flora:

"SPECIALLY PROTECTED AREA N° 12, Fildes Peninsula, King George Island/25 May, South Shetland Islands, Lat. 62°11'S., long. 58°52'W.

Description: The fresh-water lake, including the surrounding land within 100 metres of the shore, situated about 500 metres north of Suffield Point and 2.5 kilometres east-north-east of Bellingshausen Station on Fildes Peninsula. The area is shown on the attached map."

Recommendation V–6

MODIFICATION OF THE AGREED MEASURES ADOPTED UNDER RECOMMENDATION III – 8 FOR THE CONSERVATION OF ANTARCTICA FAUNA AND FLORA

The Representatives recommend to their governments that:

(1) in paragraph (d) of Article II after the words "Agreed Measures" they add the following:

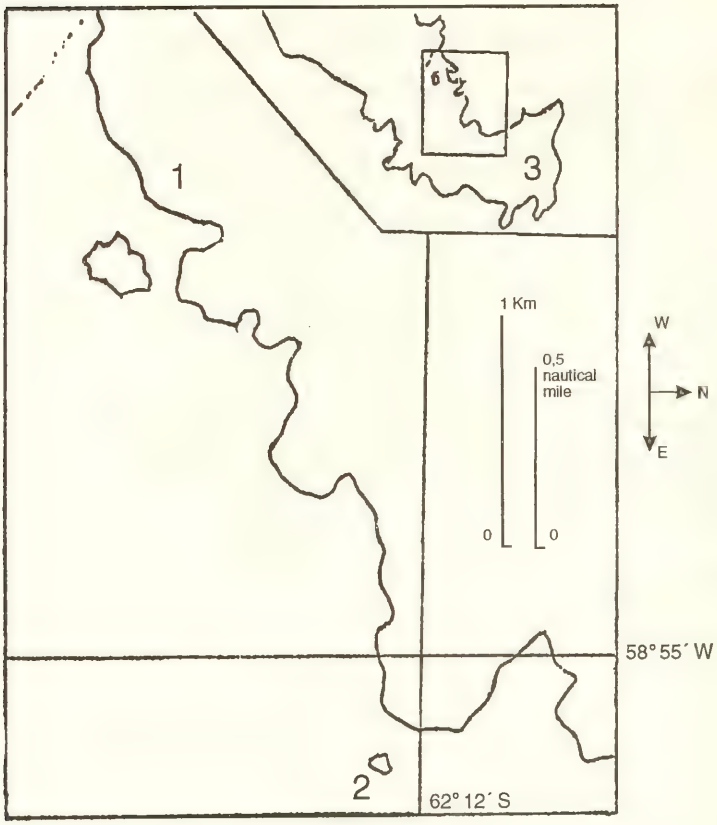
"The functions of an authorised person will be carried out within the framework of the Antarctic Treaty. They will be carried out exclusively in accordance with scientific principles and will have as their sole purpose the effective protection of Antarctic fauna and flora in accordance with these Agreed Measures".

(2) in paragraph (e) of Article II, after the words "appropriate authority", they add the following:

"as defined at paragraph (d) above".

DESIGNATIONS GEOGRAPHIQUES

1. Point Suffield
2. Station Bellingshausen
3. Péninsule Fildes



PLACE NAMES

1. Suffield Point
2. Bellingshausen Station
3. Fildes Peninsula

DESIGNACIONES GEOGRAFICAS

1. Punto Suffield
2. Estacion Bellingshausen
3. Peninsula Fildes

Measures Approved or Recommended Under Article IX in Furtherance of Principles and Objectives of the Antarctic Treaty, Tokyo, 1970

Adopted at Tokyo 30 October 1970

*Recommendations VI-1 through VI-7 and VI-11 through VI-15 effective 10 October 1973; Recommendation VI-9 effective 1 November 1982; Recommendation VI-10 effective 8 April 1987**

Primary source citation: 25 UST 266, TIAS 7796

[CERTAIN RECOMMENDATIONS OF THE SIXTH ANTARCTIC TREATY CONSULTATIVE MEETING]

RECOMMENDATION VI–1
ANTARCTIC TELECOMMUNICATIONS

The Representatives,

Considering that:

(1) an Antarctic telecommunications system serves the administrative, operational, meteorological and other scientific needs of stations in the Antarctic;

(2) there is a need to exchange meteorological information as soon as possible within the Antarctic Treaty area and to transmit that information with minimum delay to the Global Telecommunications System;

(3) there is a need to organize technically compatible routes for telecommunications both within, and out of the Antarctic Treaty area;

(4) an Antarctic telecommunications system needs to respond, as may be appropriate, to future changes in requirements for transmission of meteorological information and advances in telecommunications technology;

Recommend to their Governments that:

1. They adopt as guide-lines the Proposals contained in the Final Report of the Second Antarctic Treaty Meeting on Telecommunications held in Buenos Aires in 1969;

2. In the plans for their expeditions they provide the organizational and technical arrangements necessary to implement these Proposals as soon as, and as far as practicable.

* Recommendation VI-8 was terminated by Recommendation VIII-5 (see page 128).

RECOMMENDATION VI–2
EXCHANGE OF INFORMATION ON TELECOMMUNICATIONS FACILITIES

The Representatives,

Considering that:

(1) there is a need to continue the annual exchange of information on telecommunications facilities;

(2) this information should be made as useful as possible to radio operators at all stations in the Antarctic;

(3) there is a need for a procedure for exchanging views on other matters pertinent to their respective telecommunications systems, but not affecting all Parties;

Recommend to their Governments that:

1. Information on telecommunications facilities be exchanged annually, under paragraph 5 of Article VII of the Antarctic Treaty and Recommendation I–VI(8), in accordance with the standard tabular format annexed hereto;

2. Information on telecommunications facilities be exchanged not later than 31 October of each year in accordance with Recommendation IV–23;

3. They authorize the addressees entered by each Consultative Party on the annexed standard tabular format also to correspond with other addressees on matters affecting their respective telecommunications systems, on the use of those systems and on the coordination of communications necessary for cooperative activities.

ANNEX TO RECOMMENDATION VI-2 Sheet 1

INFORMATION ON TELECOMMUNICATIONS EQUIPMENT AND SCHEDULES FOR THE YEAR . . . .

COUNTRY . . . . . ADDRESS FOR CORRESPONDENCE ON THIS INFORMATION . . . . . .

STATION . . . . . LAT . . . . . LONG . . . . . .

CALLSIGN . . . . . .

	TRANSMITTERS			RECEIVERS				REMARKS
Type	Frequency bands	Types of transmission and power	Frequency selection (Crystal VFO, etc.)	Type	Frequency bands	Types of reception available	Frequency selection (Crystal VFO, etc.)	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

Sheet 2

INFORMATION ON TELECOMMUNICATIONS EQUIPMENT AND SCHEDULES FOR THE YEAR . . . .

COUNTRY . . . . . ADDRESS FOR CORRESPONDENCE ON THIS INFORMATION . . . . . .

STATION . . . . . LAT . . . . . LONG . . . . . .

CALLSIGN . . . . . .

ANTENNA		FACSIMILE		TELEPRINTER		REMARKS	
Type	Azimuth (in degrees or omni)	Index of co-operation	Drum speed	Type	Speed (bauds)		LIST OF AVAILABLE FREQUENCIES
(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)

Sheet 3

INFORMATION ON TELECOMMUNICATIONS EQUIPMENT AND SCHEDULES FOR THE YEAR . . . .

COUNTRY . . . . . ADDRESS FOR CORRESPONDENCE ON THIS INFORMATION . . . . . .

STATION . . . . . LAT . . . . . LONG . . . . . .

CALLSIGN . . . . . .

DETAILS OF REGULAR CIRCUITS

	GMT		FREQUENCIES USED		CIRCUIT CONDUCT				REMARKS
Station worked	Open	Close	Transmitting	Receiving	Type of emission (See CCIR 432) (x)	Type of traffic	SX or DX	Side Band	
(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)

(x) If error correcting used, specify details

RECOMMENDATION VI–3
ANTARCTIC METEOROLOGY

The Representatives,

Considering that:

(1) the exchange of scientific observations is provided by paragraph 1(c) of Article III of the Antarctic Treaty;

(2) meteorological information for flight, marine and field operational forecasts is an important requirement at some stations in the Antarctic;

(3) Antarctic meteorological information is required by adjacent continents for the preparation of weather analyses and prognoses;

(4) meteorological activities in the Antarctic should be supported, to the greatest extent feasible, by transmissions of processed data to the Antarctic from the World Weather Watch;

(5) the requirements of the Consultative Parties for meteorological information will change as the operational activities and the scientific programmes of their Antarctic stations evolve;

(6) the requirements of the Consultative Parties for meteorological information will change as knowledge and understanding of the meteorology of the Antarctic Treaty area grow and with developments in meteorological technology;

Recommend to their Governments that:

1. They adopt Annex 1 to this Recommendation as a current basis for planning the exchange of available raw meteorological data;

2. They adopt Annex 2 to this Recommendation as a current basis for planning the exchange of available processed meteorological data;

3. They support, as far as practicable, such measures as will facilitate the speedy and effective implementation of Annexes 1 and 2 as a basis for planning;

4. They invite the World Meteorological Organization to review Annexes 1 and 2 from time to time and advise them of the results of such reviews.

ANNEX I TO RECOMMENDATION VI-3
REQUIREMENTS FOR AVAILABLE RAW METEOROLOGICAL DATA (Number of receptions per day)

DATA REQUIRED BY / DATA REQUIRED FROM	(4) (5) McMurdo	(6) McMurdo	(5) Dumont d'Urville	(6) Dumont d'Urville	(4) Casey	(4) Davis	(4) Mawson	(1) Syowa	(2) (4) Mirny	Molodezhnaya	(4) Frei	(4) Orcadas	Réunion	Stanley	Santiago	(4) Buenos Aires	(3) Pretoria	Wellington	(4) Melbourne	(4) Moscow	(4) Washington
Brockton	4	1	2	1					4	4	4	4				4		4	4	4	4
Byrd	2 4	1 1							2 4	2 4	2 4	2 4		2 2		2 4		2 4	2 4	2 4	2 4
Hallett	2 4	1 1	2 2	1 1					2 4	2 4	2 4	2 4				2 4		2 4	2 4	2 4	2 4
McMurdo	X	X	2 2	1 1					2 4	2 4	2 4	2 4	1 1			2 4		2 4	2 4	2 4	2 4
Pole	2 4	1 1	2 2	1 1					2 4	2 4	2 4	2 4	1 1	2 2		2 4	2 2	2 4	2 4	2 4	2 4
Dumont d'Urville	2 4	1 1	X	X	2 4	2 4	2 4		2 4	2 4	2 4	2 4				2 4	2 2	2 4	2 4	2 4	2 4
Casey	2 4	1 1			X	2 4	2 4		2 4	2 4	2 4	2 4	1 1			2 4		2 4	2 4	2 4	2 4
Davis	2 4	1 1			2 4	X	2 4		2 4	2 4	2 4	2 4	1 1			2 4	2 4	2 4	2 4	2 4	2 4
Mawson	2 4	1 1			2 4	2 4	X	2 2	2 4	2 4	2 4	2 4	1 1			2 4	2 2	2 4	2 4	2 4	2 4
Roi Baudouin	2 4	1 1						2 2	2 4	2 4	2 4	2 4	1 1			2 4	2 2	2 4	2 4	2 4	2 4
Sanae	2 4	1 1						2 2	2 4	2 4	2 4	2 4	1 1	2 2			2 2	2 4	2 4	2 4	2 4
Syowa	2 4	1 1			2 4	2 4	2 4	X	2 4	2 4	2 4	2 4	1 1			2 4	2 2	2 4	2 4	2 4	2 4
Bellingshausen	4	1							4	4	4	4		2	4	4	2	4	4	4	4
Mirny	2 4	1 1	2 2	1 1	2 4	2 4	2 4		X	1 4	2 4	2 4	1 1			2 4	2 2	2 4	2 4	2 4	2 4
Molodezhnaya	2 4	1 1			2 4	2 4	2 4	2 2	2 4	X	2 4	2 4	1 1			2 4	2 2	2 4	2 4	2 4	2 4
Novolazarevskaya	2 4	1 1						2 2	2 4	2 4	2 4	2 4	1 1			2 4	2 2	2 4	2 4	2 4	2 4
Vostok	2 4	1 1	2 2	1 1					2 4	2 4	2 4	2 4	1 1			2 4		2 4	2 4	2 4	2 4
Frei	4	1							4	4	X	4		2	4	4	2		4	4	4
O'Higgins	4	1							4	4	4	4		2	4	4	2		4	4	4
Prat	4	1							4	4	4	4		2	4	4	2		4	4	4
Belgrano	4	1							4	4	4	4		2	4	4	2	4	4	4	4
Esperanza	4	1							4	4	4	4		2	4	4	2		4	4	4
Matienzo	4	1							4	4	4	4		2	4	4	2		4	4	4
Orcadas	2 4	1 1							2 4	2 4	2 4	X		2 2	2 4	2 4	2 2		2 4	2 4	2 4
Petrel	2 4	1 1							2 4	2 4	2 4	2 4		2 2	2 4	2 4	2 2		2 4	2 4	2 4
Sobral	4	1							4	4	4	4		2	4	4	2	4	4	4	4
Adelaide	2 4	1 1							2 4	2 4	2 4	2 4		2 2	2 4	2 4	2 2		2 4	2 4	2 4
Argentine Islands	2 4	1 1							2 4	2 4	2 4	2 4		2 2	2 4	2 4	2 2		2 4	2 4	2 4
Halley Bay	2 4	1 1							2 4	2 4	2 4	2 4	2	2 2	2 4	2 4	2 2	2 4	2 4	2 4	2 4
Fossil Bluff	4	1							4	4	4	4		2	4	4	2		4	4	4
Signy Island	4	1							4	4	4	4		2	4	4	2		4	4	4
Region I—Selection Blocks 61, 67, 68 (South of 20° South)	2 4	1 1										2 4									
REGION III—Selection Blocks 85 (600–999) 87 (500–999) 88 and 89	2 4	1 1									2 4	2 4									
REGION V—Selection Blocks 91, 93, 94, 95 (South of 20° South)	2 4	1 1										2 4									
All Southern Hemisphere									2 4	2 4											

NOTES

(1) At Syowa requirements are for reception of surface and upper air data once per day from each of the stations shown. Future requirements will be twice per day.

(2) The data requirements of Mirny, after about March 1971, will be reduced.

(3) 18 and 00 GMT data should be transmitted together; the same applies to 06 and 12 GMT data.

(4) In addition to surface and upper-air synoptic data, synoptic data, SHIP, AIREP and MOBIL reports are also required.

(5) Austral summer (1 October–31 March)

(6) Austral winter (1 April to 30 September)

KEY

Desired number of receptions per day.

2	Upper air
4	Surface

ANNEX II TO RECOMMENDATION VI-3
REQUIREMENTS FOR AVAILABLE PROCESSED METEOROLOGICAL DATA (Number of Receptions per day)

DATA REQUIRED FROM	DATA REQUIRED BY	SURFACE		UPPER-AIR ANALYSES AND PROGNOSES								ZARDOUS WEATHER WARNINGS				MARINE FORE-CASTS		
		ANALYSES	PROGNOSES	500 mb	300 mb	200 mb	ALL AVAILABLE	NEPHANALYSES	CLIMAT	CLIMAT (TEMP)	TERMINAL FORECASTS	BELLINGSHAUSEN SEA	DRAKE PASSAGE	WEDDELL SEA	SCOTIA SEA	BELLINGSHAUSEN SEA	DRAKE PASSAGE	OTHER PROCESSED DATA
I. PROCESSED DATA REQUIRED BY ANTARCTIC STATIONS FROM OUTSIDE THE TREATY AREA																		
Melbourne[3]	Dumont d'Urville	2[4]	2[4]	2[4]														
Melbourne	Frei	4	4	2	2			2										
	McMurdo	4		2[1]	2[1]		A[1]	2										
	Mawson	A	A	A														X[6]
	Casey	A	A	A														X[6]
	Davis	A	A	A														X[6]
	Molodezhnaya[15]	4	4	2	2			A										
Buenos Aires	Orcadas	4	4	2		2												
	Molodezhnaya[15]	4	4	2	2			A										
Wellington/ Christchurch	McMurdo							2			2[7]							
Stanley	Palmer													X	X			
	Molodezhnaya[15]													A	A			
Nairobi	Molodezhnaya[15]	4	4	2	2			A										
Rio de Janeiro[8]	Molodezhnaya[15]							A										
Washington	Molodezhnaya[15]							A										
II. PROCESSED DATA REQUIRED BY CENTRES OUTSIDE THE TREATY AREA FROM ANTARCTIC STATIONS																		
Molodezhnaya[15]	Réunion	1[9]	1[9]	1[9]														
	Pretoria	2	2	2		2												
	Moscow	2	2															
McMurdo	Melbourne	A	A	A														
	Wellington	1[2]	1[2]	1[2]	1[2]													
All Antarctic stations	Buenos Aires	4	4			2												
All Antarctic APT stations	Melbourne						A											
III. PROCESSED DATA TO BE EXCHANGED BETWEEN ANTARCTIC STATIONS																		
McMurdo	Dumont d'Urville	2[4]	2[4]	2[4]														
	Frei	4	4	2	2													
	Pole										4[10]							
	Brockton										4[10]							
	Byrd										4[10]							
	Hallett										4[10]							
Molodezhnaya (15)	Dumont d'Urville	2[4]	2[4]	2[4]														
	Frei	4	4	2	2			2										
	Syowa	1	1	1		1			M[11]	M[11]								
	McMurdo	2		2[1]				2			X							
	Bellingshausen																	X[12]
	Novolazarevskaya																	X[12]
	Vostok																	X[12]
	Miray	4	4															
Mawson	Orcadas	4	4	2		2												
	Syowa	1	1	1		1			M[11]	M[11]								
Frei	All United Kingdom Antarctic Stations																	[15] X
	McMurdo	2		2[1]				2			X							
	Palmer											A	A			1	1	
	Molodezhnaya[15]	A					A					A	A			A	A	
Orcadas	All United Kingdom Antarctic Stations																	[13] X
	Molodezhnaya[15]	A					A					A	A			A	A	
All Antarctic Stations	Molodezhnaya[15]	A					A											[14] A

NOTES AND KEY

KEY: A = As available
X = When requested
M = Monthly

NOTES:

(1) Analyses only

(2) For 00 GMT

(3) Alternatively from Molodezhnaya or McMurdo

(4) For area between long. 90°E and long. 180° (by facsimile). Also special forecasts on request.

(5) Numerical analyses and prognoses (not used)

(6) Operational forecasts and facsimile broadcast from Canberra (AXM)

(7) For selected New Zealand aerodromes

(8) Alternatively from Brasilia

(9) For area between longitudes 30° and 120°E

(10) During Austral summer (1 October–31 March)

(11) Monthly mean data required for Mawson, Molodezhnaya, Roi Baudouin, Novolazarevskaya and Sanae from either Molodezhnaya or Mawson

(12) Forecasts for aviation and shipping as necessary during Austral summer (1 October–31 March)

(13) Analyses and marine forecasts

(14) Hazardous weather warnings (general)

(15) Molodezhnaya will take over the functions of Mirny from about March 1971

RECOMMENDATION VI–4
MAN'S IMPACT ON THE ANTARCTIC ENVIRONMENT

The Representatives,

Considering and Recognizing that:

(1) in the Antarctic Treaty area the ecosystem is particularly vulnerable to human interference;

(2) the Antarctic derives much of its scientific importance from its uncontaminated and undisturbed condition;

(3) there is an increasingly urgent need to protect the environment from human interference;

(4) the Consultative Parties should assume responsibility for the protection of the environment and the wise use of the Treaty area;

Recommend to their Governments that:

1. They invite the Scientific Committee for Antarctic Research through their National Antarctic Committees:

   (a) to identify the types and assess the extent of human interference which has occurred in the Treaty area as a result of man's activities;

   (b) to propose measures which might be taken to minimize harmful interference;

   (c) to consider and recommend scientific programmes which will detect and measure changes occurring in the Antarctic environment;

2. They encourage research on the impact of man on the Antarctic ecosystem;

3. They take interim measures to reduce known causes of harmful environmental interference;

4. They consider including on the agenda for the Seventh Antarctic Treaty Consultative Meeting an examination of this matter in the light of any further available information.

RECOMMENDATION VI–5
THE USE OF RADIO-ISOTOPES IN THE ANTARCTIC

The Representatives,

Recognizing:

(1) the need to minimise harmful disturbance to the Antarctic environment;

(2) that the uncontrolled use of radio-isotopes in the course of scientific investigations may jeopardise the conduct of subsequent investigations;

Recommend to their Governments that through their National Antarctic Committees, they invite the Scientific Committee on Antarctic Research to consider the uses of radio-isotopes in Antarctic scientific investigations and to propose comprehensive principles for their control which can be considered under Article IX of the Antarctic Treaty.

RECOMMENDATION VI–6
COORDINATION OF ANTARCTIC SCIENTIFIC INVESTIGATIONS INVOLVING THE USE OF RADIO-ISOTOPES

The Representatives,

Recognizing that experiments involving the use of radio-isotopes may jeopardize subsequent scientific investigations in the same locality;

Considering that:

(1) prior notification of the use of radio-isotopes is necessary to allow time for consultations between Consultative Parties whose investigators may wish to carry out experiments in the same locality at a later date;

(2) interim measures are required before agreement is reached on the controlled use of radio-isotopes in the Antarctic Treaty area;

Recommend to their Governments that, when experiments involving the use of radio-isotopes in the Antarctic Treaty area are planned, they should provide appropriate information on such experiments to other Consultative Parties as early as possible, preferably six months in advance, but in any event annually.

RECOMMENDATION VI–7
EFFECTS OF TOURISTS AND NON-GOVERNMENT EXPEDITIONS TO THE ANTARCTIC TREATY AREA

The Representatives,

Noting the increase in recent years in the number of tourists and also in the number of visitors who are not sponsored by the Consultative Parties to the Antarctic Treaty area;

Considering that the activities of such visitors can have lasting and harmful effects on scientific programmes, on the Antarctic environment, particularly in Specially Protected Areas, and on historic monuments;

Desiring to ensure that such visitors are afforded the best view of stations in the Antarctic compatible with the research programmes being undertaken;

Recalling paragraph 5 of Article VII and Article X of the Antarctic Treaty and Recommendations I–VI and IV–27;

Recommend to their Governments that:

1. They should exert appropriate efforts to ensure that all tourists and other visitors do not engage in any activity in the Treaty area which is contrary to the principles and purposes of the Antarctic Treaty or Recommendations made under it;

2. They should inform, in so far as they are able, those responsible for expeditions to the Treaty area which are not organized by a Consultative Party but organized in, proceeding from, or calling at, their territory, of the following:

(a) that final arrangements to visit any station be made with that station between twenty four and seventy two hours in advance of the expected time of arrival;

(b) that all tourists and other visitors comply with any conditions or restrictions on their movements which the station commander may stipulate for their safety or to safeguard scientific programmes being undertaken at or near the station;

(c) that visitors must not enter Specially Protected Areas and must respect designated historic monuments;

3. Advance notice of all expeditions to the Treaty area not organized by a Consultative Party, but organized in, proceeding from or calling at that Party's territory, shall be given, in so far as is possible, to the other Consultative Parties. Such notice shall include the relevant information listed in Recommendation I–VI;

4. Until such time as this Recommendation becomes effective in accordance with Article IX of the Antarctic Treaty, it shall be considered, as far as feasible, as a guide-line.

RECOMMENDATION VI–11
NEW ISLANDS

The Representatives,

Recognizing the special scientific interest of new islands formed by geological processes in the Antarctic;

Recalling that the investigation of the colonization of an uncontaminated area by animals and plants can easily be spoiled by the presence of man;

Recommend to their Governments:

1. That any new island formed by geological processes in the Antarctic Treaty area should be the subject of immediate consultation through diplomatic channels with a view to its consideration at the next Consultative Meeting in order to accord it special protection. Until this can be done, they should use their best endeavors to avoid its contamination by human interference;

2. That they should use their best endeavors to prevent tourists from landing on such islands.

RECOMMENDATION VI–12
SCIENTIFIC RESEARCH ROCKETS

The Representatives,

Considering that:

(1) in recent years a number of countries have launched scientific research rockets (sounding rockets) from the Antarctic Treaty area and that the number of such launchings is expected to increase along with the scale and importance of scientific research activities in the Antarctic;

(2) it will be necessary to adopt adequate safety measures to prevent possible damage or injury to persons, fauna and flora, facilities, vessels and aircraft in the Antarctic Treaty area and in adjacent areas which might result from the launching of rockets from the Treaty area or from their residual elements;

Recommend to their Governments that:

1. Each Government which plans to launch rockets from the Antarctic Treaty area include in its annual exchange of information under paragraph 5 of Article VII of the Antarctic Treaty details of each planned launching, including *inter alia* the following information:

(a) the geographical co-ordinates of the place of launching;

(b) the time and date of launching or, alternatively, the approximate period of time during which it is planned to carry out the launchings;

(c) the direction of launching;

(d) the planned maximum altitude;

(e) the planned impact area;

(f) the type and other specifications of the rockets to be launched, including possible residual hazards;

(g) the purpose and research programme of the rocket.

2. During summer operations, and at other times when there are operations in its area, each station use its radio facilities to keep neighbouring stations informed, on a daily basis as appropriate, of its launching schedules.

RECOMMENDATION VI–13
EXCHANGE OF INFORMATION ON OCEANOGRAPHIC RESEARCH

The Representatives,

Noting the growing importance of oceanographic research and the increasing activities of ships conducting scientific programmes in the Southern Ocean area;

Noting, in particular, the interest of the Consultative Parties in the Southern Ocean as set forth in Recommendation V–3;

Bearing in mind that Recommendation I–VI includes provision for exchange of information regarding scientific investigation and areas of operation;

Considering that uniformity in the type and amount of data exchanged on ships and their scientific programmes will greatly enhance the usefulness of this information;

Recommend to their Governments that in exchanging information annually, in accordance with Recommendation I–VI (1), (2), (4), (6), (7) and Recommendation II–VI, they include information about those ships which are carrying out substantial oceanographic research programmes in the area south of 60° South Latitude.

RECOMMENDATION VI–14
HISTORIC MONUMENTS

The Representatives,

Recalling Recommendations I–IX and V–4;

Recommend to their Governments that:

1. They adopt all adequate measures to preserve and protect from damage the historic monuments situated in the Antarctic Treaty area;

2. They arrange for each of these historic monuments to be appropriately marked with a notice indicating in the English, French, Russian and Spanish languages that it is scheduled for preservation in accordance with the provisions of the Antarctic Treaty;

3. A list of historic monuments be prepared by consultation through diplomatic channels for consideration at the Seventh Consultative Meeting.

RECOMMENDATION VI–15
SEVENTH ANTARCTIC TREATY CONSULTATIVE MEETING

The Representatives,

Recommend to their Governments that they accept the offer by the Delegation of New Zealand to hold the Seventh Consultative Meeting under Article IX of the Antarctic Treaty in Wellington, on a date in 1972 to be mutually decided upon by the Consultative Governments.

[APPENDIX]

RECOMMENDATION VI–8
PERMITS FOR ENTRY TO SPECIALLY PROTECTED AREAS

The Representatives,

Recalling Article VIII of the Agreed Measures for the Conservation of Antarctic Fauna and Flora annexed to Recommendation III–VIII ("the Agreed Measures") and the need to conform with paragraph 4(a) of that Article;

Considering that, in order to be effective, the existing prohibitions and measures of protection relating to Specially Protected Areas need to be strengthened;

Recommend to their Governments that:

1. They use their best endeavours to ensure compliance with these provisions of the Agreed Measures which relate to Specially Protected Areas;

2. They take such action as may be appropriate to prohibit the entry by their nationals into a Specially Protected Area, except in accordance with a permit issued under Articles VI and VIII of the Agreed Measures;

3. Until such time as this Recommendation may become effective in accordance with Article IX of the Antarctic Treaty, it shall, as far as feasible, be considered as a guide-line.

RECOMMENDATION VI–9
DATA ON THE CONSERVATION OF FAUNA AND FLORA

The Representatives,

Recalling Recommendations III–X and IV–19;

(1) information is already being exchanged in accordance with the interim guide-lines contained in Recommendation IV–20;

(2) this information may be freely published and it is desirable that it should be amalgamated in the form most useful for scientific analysis;

Recommend to their Governments that:

1. They transmit the information exchanged under Recommendation IV–19 to their National Antarctic Committees;

2. They invite the Scientific Committee on Antarctic Research, through their National Committees, to assemble the information exchanged under Article XII of the Agreed Measures for the Conservation of Antarctic Fauna and Flora, to arrange for its publication and, in accordance with Recommendation IV–19, to prepare reports from time to time on the status of species.

RECOMMENDATION VI–10
SPECIALLY PROTECTED AREA: COPPERMINE PENINSULA, ROBERT ISLAND

The Representatives,

Considering that Coppermine Peninsula is a biologically diverse area, supporting rich vegetation, together with a variety of terrestrial fauna, and that the ecosystem, which includes a rich avifauna, is of outstanding scientific interest;

Recommend to their Governments that the following be included in Annex B, Specially Protected Areas, of the Agreed Measures for the Conservation of Antarctic Fauna and Flora;

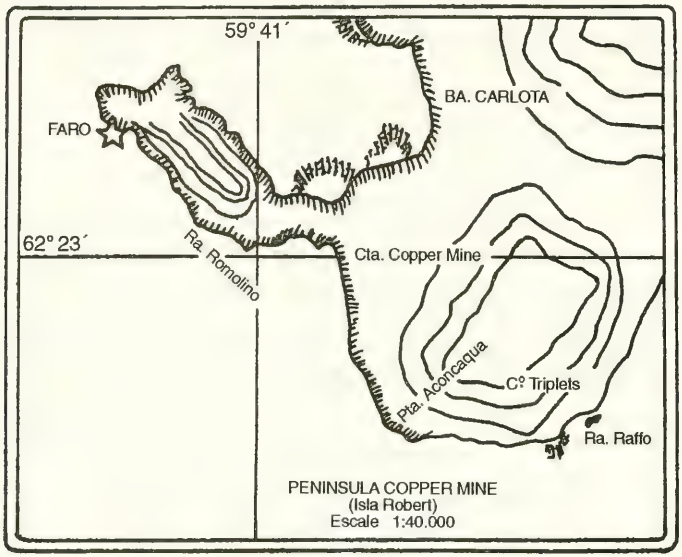
SPECIALLY PROTECTED AREA NO. 16

Coppermine Peninsula, Robert Island

Lat. 62°23'S., Long. 59°41'W.

DESCRIPTION: The area comprises all the land west of a line drawn from north to south across the Peninsula, 100 meters west of the two shelters found on the isthmus.

The area is shown on the attached map.



Measures Approved or Recommended Under Article IX in Furtherance of Principles and Objectives of the Antarctic Treaty, Wellington, 1972

Adopted at Wellington 10 November 1972

Recommendations VII-1 through VII-3 and VII-6 through VII-8 effective 29 May 1975; Recommendations VII-4 and VII-9 effective 24 June 1981; Recommendation VII-5 effective 10 February 1988

Primary source citation: 28 UST 1138, TIAS 8500

[CERTAIN RECOMMENDATIONS OF THE SEVENTH ANTARCTIC TREATY CONSULTATIVE MEETING]

RECOMMENDATION VII–1

Man's Impact on the Antarctic Environment

The Representatives,

Recalling Recommendations III–VIII and VI–4;

Noting the information provided by the Consultative Parties about the implementation of the Agreed Measures on the Conservation of Antarctic Fauna and Flora;

Considering that there is a need to strengthen the protection of the Antarctic environment;

Recommend to their Governments that:

1. They take note of the responses by SCAR to paragraph 1 of Recommendation VI–4 and that they discuss these responses in detail at the Eighth Consultative Meeting;

2. They consider adopting as far as feasible and practicable, and subject to other international arrangements and advice, these responses of SCAR as voluntary guidelines for the conduct of their expeditions and stations;

3. They encourage SCAR, through their national committees, to continue its interest in this matter.

RECOMMENDATION VII–2

Review of Specially Protected Areas

The Representatives,

Recalling:

(1) that the purpose of Specially Protected Areas is to preserve, in accordance with the Agreed Measures for the Conservation of Antarctic Fauna and Flora, the natural ecological systems of areas of outstanding scientific interest;

(2) that Recommendation VI–8 has notably increased the protection afforded to Specially Protected Areas by prohibiting entry into them except in accordance with a permit;

Recognising that the existing Specially Protected Areas were designated under less strict provisions regarding entry;

Conscious of the need to review the existing Specially Protected Areas in the light of experience and the increased degree of protection they have been afforded;

Recalling Recommendation III–X which encouraged SCAR to continue its interest in and prepare reports from time to time on the conservation of Antarctic fauna and flora;

Noting the opinion of SCAR, expressed in the report produced at its Twelfth Meeting on the "Purposes and Designation of Special Areas", that the existing Specially Protected Areas are not fully representative of the major Antarctic land and freshwater ecological systems and that some of these ecological systems are overrepresented in the series so far designated;

Recommend to their Governments that:

1. In due course they include in the series of Specially Protected Areas listed in Annex A of the Agreed Measures for the Conservation of Antarctic Fauna and Flora:

(a) representative examples of the major Antarctic land and freshwater ecological systems;

(b) areas with unique complexes of species;

(c) areas which are the type locality or only known habitat of any plant or invertebrate species;

(d) areas which contain specially interesting breeding colonies of birds or mammals;

(e) areas which should be kept inviolate so that in the future they may be used for purposes of comparison with localities that have been disturbed by man;

2. They invite SCAR, through their National Committees, to review in the light of the criteria set out in paragraph 1 the existing Specially Protected Areas, and to make recommendations about:

(a) the desirability of retaining each Area;

(b) the desirability of redefining the limits of each Area retained;

(c) creating such additional Areas as may be considered desirable;

3. The number of Specially Protected Areas should be kept to the minimum that will meet the criteria set out in paragraph 1;

4. The size of each Specially Protected Area should be the minimum required to serve the purpose for which the Area has been designated.

RECOMMENDATION VII–3

Sites of Special Scientific Interest

The Representatives,

Recognising that:

(1) Scientific investigations may be jeopardised by accidental or wilful interference;

(2) sites where such investigations are proceeding may require a measure of protection;

(3) because of the continuing scientific investigations in them, certain localities of botanical or zoological interest are not suitable for designation as Specially Protected Areas under the Agreed Measures for the Conservation of Antarctic Fauna and Flora;

(4) sites of non-biological interest cannot be designated as Specially Protected Areas;

Considering that the application of individual management plans regulating access and use for a specified period to such sites, which might be called Sites of Special Scientific Interest, would enable investigations at these sites to be carried out without interference;

Recommend to their Governments that:

1. They invite SCAR, through their National Committees, to consider this matter further and make suggestions for the designation of Sites of Special Scientific Interest (together with a proposed management plan for each site);

2. They study the subject further with a view to its inclusion on the Agenda of the Eighth Consultative Meeting.

RECOMMENDATION VII–6

Antarctic Resources—Effects of Mineral Exploration

The Representatives,

Recalling the provisions and principles of the Antarctic Treaty;

Reaffirming that it is in the interest of all mankind that the Antarctic Treaty Area shall continue forever to be used exclusively for peaceful purposes and shall not become the scene or object of international discord;

Acknowledging that the Antarctic Treaty places a special responsibility upon the Contracting Parties to exert appropriate efforts, consistent with the Charter of the United Nations, to the end that no one engages in any activity in the Antarctic Treaty Area contrary to the principles or purposes of the Treaty;

Noting the technological developments in polar mineral exploration and the increasing interest in the possibility of there being exploitable minerals in the Antarctic Treaty Area;

Noting that there is a need for further study and deliberation amongst the Consultative Parties;

Recognising that mineral exploration is likely to raise problems of an environmental nature and that the Consultative Parties should assume responsibility for the protection of the environment and the wise use of resources;

Conscious of the special situation in the Antarctic arising from the particular regime of the Antarctic Treaty and the Recommendations adopted under it;

Recommend to their Governments that the subject "Antarctic Resources—Effects of Mineral Exploration" be carefully studied and included on the Agenda of the Eighth Consultative Meeting.

RECOMMENDATION VII–7

Antarctic Telecommunications

The Representatives,

Considering the contribution to the study of Antarctic radio propagation and the ionosphere made at the SCAR Symposium on "Scientific and Technical Problems Affecting Antarctic Telecommunications" held in Sandefjord, Norway, in May 1972 and the Interim Report of the SCAR Group of Specialists (Revised 25 August 1972);

Recognising the need for improving, as far as practicable, the transmission of information between stations within the Antarctic Treaty Area and between those stations and the rest of the world;

Bearing in mind that difficulties may arise in Antarctic communications if new methods of transmission are accepted by Consultative Parties without due regard to the principle of compatibility both between new systems and between new and existing systems;

Recommend to their Governments that:

1. Their offices administering Antarctic programmes take into account the information presented at the SCAR Symposium when considering new means of improving Antarctic communications; techniques discussed at the Symposium and brought to the attention of Representatives by SCAR and others included communications satellites, VHF low power scatter systems, oblique ionospheric sounding, coding and error correcting devices and the wider use of ionospheric prediction services, especially with regard to short-term advice on impending disturbances;

2. Their offices administering Antarctic programmes be encouraged to exchange information about changes contemplated in types of equipment or methods in order to improve, where practicable, compatibility between Antarctic networks.

RECOMMENDATION VII–8

Co-operation in Transport

The Representatives,

Recognising that the relative inaccessibility of many regions of the Antarctic Treaty Area creates special transport problems;

Acknowledging the benefits to be derived from international cooperation in scientific investigations in that Area;

Recommend to their Government that:

1. They accept the principle of using, where appropriate, common transport facilities by sea and by air for scientific and other personnel proceeding with their equipment to and from Antarctic stations;

2. They encourage bilateral or multilateral consultations between Contracting Parties in order to establish when arrangements for such common use of transport facilities would be mutually convenient and practicable;

3. The cost of the use of any common transport facilities should be arranged by agreement between the Contracting Parties concerned, either by direct payment, by reciprocation in kind, or by other mutually agreed means.

[APPENDIX]

RECOMMENDATION VII–4

Effects of Tourists and Non-Governmental Expeditions in the Antarctic Treaty Area

The Representatives,

Noting the increase in the Antarctic Treaty Area in the number of visitors who are not sponsored by Consultative Parties;

Considering that both Governments and such visitors would benefit from having available to them an agreed statement:

(a) of accepted practices in the Treaty Area including, inter alia, the need for self sufficiency and prior notification of intended arrival at a station, which such visitors would be expected to follow (to which could be appended the particular conditions imposed by each government for a visit to any one of its stations); and

(b) of the relevant provisions of the Antarctic Treaty and of the Recommendations made under it;

Recalling Recommendations VI–7 and VI–11 concerning the possible harmful effects of such visitors on scientific programmes and on the Antarctic environment;

Convinced of the need to avoid unnecessary interference with natural ecological systems which are not sufficiently understood and continue to be the subject of research;

Conscious that the Treaty Area contains many unique features of historical, scenic and general scientific interest;

Recommend to their Governments that:

1. They keep under review, in the light of existing Recommendations, the effects in the Treaty Area of tourists and other visitors who are not sponsored by Consultative Parties;

2. They consider drawing up at the Eighth Consultative Meeting a statement of those accepted practices and relevant provisions about which all visitors to the Treaty Area should be aware;

3. They consult each other well in advance about the possibility of designating at the Eighth Consultative Meeting an adequate number of areas of interest to which tourists could be encouraged to go, and about the criteria to be used to determine such areas;

4. They use their best efforts to ensure that the provisions of the Treaty and subsequent Recommendations relating to the conservation of fauna and flora are applied in practice to all visitors who are not sponsored by Consultative Parties, as well as to tourists.

RECOMMENDATION VII–5

Importation of Laboratory Animals and Plants

The Representatives,

Considering:

(1) that harmful interference with the natural ecological system may be caused by micro-organisms introduced by man for experimental purposes;

(2) Article IX of the Agreed Measures for the Conservation of Antarctic Fauna and Flora;

Recommend to their Governments that the following be added to the end of paragraph (c) of Annex C, Importation of Animals and Plants, of the Agreed Measures for the Conservation of Antarctic Fauna and Flora:

"including viruses, bacteria, yeasts and fungi".

RECOMMENDATION VII–9

Historic Monuments

The Representatives,

Recalling Recommendations I–IX, V–4 and VI–14;

Recommend to their Governments that they approve the annexed "List of Historic Monuments Identified and Described by the Proposing Government or Governments".

ANNEX TO RECOMMENDATION VII–9

List of Historic Monuments Identified and Described by the Proposing Government or Governments*

1 Flag mast erected in December 1965 at the South Geographical Pole by the First Argentine Overland Polar Expedition.

2 Rock cairn and plaques at Syowa Station (Lat. 69°00′ S., Long. 39°35′ E.) in memory of Shin Fukushima, a member of the 4th Japanese Antarctic Research Expedition, who died in October 1960 while performing official duties. The cairn was erected on 11 January 1961 by his colleagues. Some of his ashes repose in the cairn.

3 Rock cairn and plaque on Proclamation Island, Enderby Land, erected in January 1930 by Sir Douglas Mawson. (Lat. 65°51′ S., Long. 53°41′ E.) The cairn and plaque commemorate the landing on Proclamation Island of Sir Douglas Mawson with a party from the British, Australian and New Zealand Antarctic Research Expedition of 1929–31.

4 Station building to which a bust of V. I. Lenin is fixed, together with a plaque in memory of the conquest of the Pole of Inaccessibility by Soviet Antarctic explorers in 1958. (Lat. 83°06′ S., Long. 54°58′ E.)

5 Rock cairn and plaque at Cape Bruce, Mac. Robertson Land, erected in February 1931 by Sir Douglas Mawson. (Lat. 67°25′ S., Long. 60°47′ E.) The cairn and plaque commemorate the landing on Cape Bruce of Sir Douglas Mawson with a party from the British, Australian and New Zealand Antarctic Research Expedition of 1929–31.

6 Rock cairn at Walkabout Rocks, Vestfold Hills Princess, Elizabeth Land, erected in 1939 by Sir Hubert Wilkins. (Lat. 68°22′ S., Long. 78°33′ E.) The cairn houses a canister containing a record of his visit.

* The Consultative Meeting does not approve or disapprove the place names appearing in the texts of this List in the different languages.

7 Stone with inscribed plaque, erected at Mirny Observatory, Mabus Point, in memory of driver-mechanic Ivan Khmara who perished on fast ice in the performance of official duties in 1956. (Lat. 66°33′ S., Long. 93°01′ E.)

8 Metal monument-sledge at Mirny Observatory, Mabus Point, with plaque in memory of driver-mechanic Anatoly Shcheglov who perished in the performance of official duties (Lat. 66°33′ S., Long. 93°01′ E.)

9 Cemetery on Buromskiy Island, near Mirny Observatory, in which are buried Soviet, Czechoslovakia and GDR citizens, members of Soviet Antarctic Expeditions, who perished in the performance of official duties on 3 August 1960. (Lat. 66°32′ S., Long. 93°01′ E.)

10 Building (magnetic observatory) at Dobrowolsky Station, Bunger Hills, with plaque in memory of the opening of Oasis Station in 1956. (Lat. 66°16′ S., Long. 100°45′ E.)

11 Heavy tractor at Vostok Station with plaque in memory of the opening of the Station in 1957. (Lat. 78°28′ S., Long. 106°48′ E.)

12 Cross and plaque at Cape Denison, George V Land, erected in 1913 by Sir Douglas Mawson on a hill situated 300 metres west by south from the main hut of the Australasian Antarctic Expedition of 1911–14. (Lat. 67°00′ S., Long. 142°42′ E.) The cross and plaque commemorate Lieutenant B. E. S. Ninnis and Dr. X. Mertz, members of the expedition, who died in 1913 while engaged in the work of the expedition.

13 Hut at Cape Denison, George V Land, built in January 1912 by Sir Douglas Mawson for the Australasian Antarctic Expedition of 1911–14. (Lat. 67°00′ S., Long. 142°42′ E.) This was the main base of the expedition.

14 Remains of rock shelter at Inexpressible Island, Terra Nova Bay, constructed in March 1912 by Victor Campbell's Northern Party, British Antarctic Expedition, 1910–13. (Lat. 74°54′ S., Long. 163°43′ E.) The party spent the winter of 1912 in this shelter and a nearby ice cave.

15 Hut at Cape Royds, Ross Island, built in February 1908 by Ernest Shackleton. (Lat. 77°38′ S., Long. 166°07′ E.) Restored in January 1961 by Antarctic Division of New Zealand Department of Scientific and Industrial Research.

16 Hut at Cape Evans, Ross Island, built in January 1911 by Captain Robert Falcon Scott. (Lat. 77°38′ S., Long. 166°24′ E.) Restored in January 1961 by Antarctic Division of New Zealand Department of Scientific and Industrial Research.

17 Cross on Wind Vane Hill, Cape Evans, Ross Island, erected by the Ross Sea Party of Ernest Shackleton's Trans-Antarctic Expedition, 1914–16, in memory of three members of the party who died in the vicinity in 1916. (Lat. 77°38′ S., Long. 166°24′ E.)

18 Hut at Hut Point, Ross Island, built in February 1902 by Captain Robert Falcon Scott. (Lat. 77°51′ S., Long. 166°37′ E.) Partially restored in January 1964 by the New Zealand Antarctic Society, with assistance from the United States Government.

19 Cross at Hut Point, Ross Island, erected in February 1904 by the British Antarctic Expedition, 1901–04, in memory of T. Vince, a member of that expedition who died in the vicinity. (Lat. 77°51′ S., Long. 166°37′ E.)

20 Cross on Observation Hill, Ross Island, erected in January 1913 by the British Antarctic Expedition, 1910–13, in memory of Captain Robert Falcon Scott's party which perished on the return journey from the South Pole, March 1912. (Lat. 77°51′ S., Long. 166°40′ E.)

21 Stone hut at Cape Crozier, Ross Island, constructed in July 1911 by Edward Wilson's party (British Antarctic Expedition, 1910–13) during the winter journey to collect Emperor penguin eggs. (Lat. 77°32′ S., Long. 169°18′ E.)

22 Hut at Cape Adare built in February 1899 during "Southern Cross" Expedition led by C. E. Borchgrevink. (Lat. 71°17′ S., Long. 170°15′ E.) There are three huts at Cape Adare: two date from Borchgrevink's expedition, and one from Scott's Northern Party, 1910–11. Only the southernmost Borchgrevink hut survives in a reasonable state of repair.

23 Grave at Cape Adare of Norwegian biologist Nicolai Hanson, a member of C. E. Borchgrevink's "Southern Cross" Expedition, 1899–1900. (Lat. 71°17′ S., Long. 170°15′ E.) This is the first known grave in the Antarctic.

24 Rock cairn, known as "Amundsen's Cairn", on Mount Betty, Queen Maud Range (Lat. 85°11′ S., Long. 163°45′ W.) erected by Roald Amundsen on 6 January 1912 on his way back to "Framheim" from the South Pole.

25 Hut and plaque on Peter I Øy, built by the Norwegian Captain Nils Larsen in February 1929 at Framnaesodden (Lat. 68°47′ S., Long. 90°42′ W.) The plaque is inscribed "Norvegia-ekspedisjonen 2/2 1929".

26 Abandoned installations of Argentine Station "General San Martin" on Barry Island, Debenham Islands, Marguerite Bay, with cross, flag mast, and monolith built in 1951. (Lat. 68°08′ S., Long. 67°08′ W.)

27 Cairn with plaque on Megalestris Hill, Petermann Island, erected in 1909 by the second French expedition led by J.-B. Charcot. (Lat. 65°10′ S., Long. 64°10′ W.) Restored by the British Antarctic Survey in 1958.

28 Rock cairn at Port Charcot, Booth Island, with wooden pillar and plaque inscribed with the names of the first French expedition led by J.-B. Charcot which wintered here in 1904 aboard "Le Francais". (Lat. 65°03′ S., Long. 64°01′ W.)

29 Light-house named "Primero de Mayo" erected on Lambda Island, Melchior Islands, by Argentina in 1942. (Lat. 64°18′ S., Long. 62°59′ W.) This was the first Argentine light-house in the Antarctic.

30 Shelter at Paradise Harbour erected in 1950 near the Chilean Base "Gabriel Gonzales Videla" to honour Gabriel Gonzales Videla, the first Head of State to visit the Antarctic. (Lat. 64°49′ S., Long. 62°51′ W.)

31 Memorial plaque marking the position of a cemetery on Deception Island (Lat. 62°59′ S., Long. 60°34′ W.) where some 40 Norwegian whalers were buried in the first half of the twentieth century. The cemetery was swept away by a volcanic eruption in February 1969.

32 Concrete monolith erected in 1947, near Arturo Prat Base on Greenwich Island. Point of reference for Chilean Antarctic hydrographic work. (Lat. 62°29′ S., Long. 59°40′ W.)

33 Shelter and cross with plaque near Arturo Prat Base, Greenwich Island. (Lat. 62°30′ S., Long 59°41′ W.) Named in memory of Lieutenant-Commander Gonzalez Pacheco, who died tragically while in charge of the station in 1960.

34 Bust of the Chilean naval hero Arturo Prat erected in 1947 at the base of the same name on Greenwich Island. (Lat. 62°30′ S., Long. 59°41′ W.)

35 Wooden cross and statue of the Virgin of Carmen erected in 1947 near Arturo Prat Base on Greenwich Island. (Lat. 62°30′ S., Long. 59°41′ W.) There is also nearby a metal plaque of Lions International Club.

36 Metal plaque at Potter Cove, King George Island, erected by Eduard Dallmann to commemorate the visit of his German expedition on 1 March 1874. (Lat. 62°13′ S., Long. 58°42′ W.)

37 Statue of Bernardo O'Higgins, erected in 1948 in front of the station of the same name. (Lat. 63°19′ S., Long. 57°54′ W.) To honour the first ruler of Chile to envision the importance of Antarctica.

38 Hut on Snow Hill Island built in February 1902 by the main party of the Swedish South Polar Expedition, led by Otto Nordenskjold. (Lat. 64°24′ S., Long. 57°00′ W.)

39 Stone hut at Hope Bay built in January 1903 by a party of the Swedish South Polar Expedition. (Lat. 63°24′ S., Long. 56°59′ W.)

40 Bust of General San Martin, grotto with a statue of the Virgin of Lujan, and a flag mast at Base "Esperanza", Hope Bay, erected by Argentina in 1955; together with a graveyard with stele in memory of members of Argentine expeditions who died in the area. (Lat. 63°24′ S., Long. 56°59′ W.)

41 Stone hut on Paulet Island built in February 1903 by C. A. Larsen, Norwegian captain of the wrecked vessel "Antarctic" of the Swedish South Polar Expedition led by Otto Nordenskjold, together with the grave of a member of that expedition. (Lat. 63°35′ S., Long. 55°47′ W.)

42 Area at Scotia Bay, Laurie Island, South Orkney Islands, in which are found: stone hut built in 1903 by the Scottish Expedition led by W. S. Bruce; the Argentine Meteorological and Magnetic Observatory, built in 1905; and graveyard with seven tombs (dating from 1903). (Lat. 60°46′ S., Long. 44°40′ W.)

43 Cross erected in 1955, at a distance of 1300 metres northeast of the Argentine Base "General Belgrano" at Piedrabuena Bay, Filchner Ice Shelf. (Lat. 77°49′ S., Long. 38°02′ W.)

Measures Approved or Recommended Under Article IX in Furtherance of Principles and Objectives of the Antarctic Treaty, Oslo, 1975

Adopted at Oslo 20 June 1975

Recommendations VIII-6 through VIII-8 and VIII-10 through VIII-14 effective 16 December 1978; Recommendations VIII-3 and VIII-4 effective 1 September 1980; Recommendations VIII-1, VIII-2, VIII-5, and VIII-9 effective 1 November 1982

Primary source citation: 34 UST 2227, TIAS 10486

[CERTAIN RECOMMENDATIONS OF THE EIGHTH ANTARCTIC TREATY CONSULTATIVE MEETING]

RECOMMENDATION VIII - 3

SITES OF SPECIAL SCIENTIFIC INTEREST

The Representatives,

Recalling Article II of the Antarctic Treaty and Recomendation VII-3;

Conscious of the need to protect scientific investigations which might suffer from wilful or accidental interference;

Desiring to protect only sites where harmful interference is generally recognised to be likely;

Recognizing the need to protect such scientific investigations irrespective of their purpose;

Recognizing that a limited number of sites of exceptional scientific interest may require long-term protection from harmful interference;

Noting with appreciation the interim response of the Scientific Committee on Antarctic Research (SCAR) to paragraph 1 of Recommendation VII-3;

Recommend to their Governments that:

1. They invite SCAR, through their National Committees, to have regard to the following when considering proposals for Sites of Special Scientific Interest:

(a) Sites should only be proposed when:

(i) Scientific investigations are being carried out or are planned to begin before the following meeting of SCAR, and there is a demonstrable risk of interference which would jeopardise those scientific investigations; or

(ii) they are of exceptional scientific interest and therefore require long-term protection from harmful interference;

(b) Sites should be proposed for designation up to a specified date, which may be extended following a review by SCAR;

(c) Proposals for the designation of Sites should be accompanied by a management plan which should include, inter alia, and where applicable, the following details:

(i) a description of the Site, together with a map delimiting its boundaries and where applicable showing any existing or proposed demarcations on the Site;

(ii) a statement setting out the reasons in conformity with paragraphs 1 (a) (i) and (ii) above for designation of the Site;

(iii) a summary of the scientific investigations being carried out or planned;

(iv) the proposed date at which the designation will expire unless extended;

(v) proposed points of access;

(vi) any proposed pedestrian and vehicular routes;

(vii) other kinds of scientific investigation which would not cause harmful interference with the investigations described at paragraph (c) (iii) above;

(viii) whether specific kinds of scientific sampling may take place and guidelines for such sampling;

(ix) any other restraints that may be needed.

2. They invite SCAR, through their National Committees, to initiate review of those Sites whose designation is likely to terminate before the second following Antarctic Treaty Consultative Meeting;

3. They request their national offices responsible for the administration of Antarctic expeditions to maintain a record of activities within each Site of Special Scientific Interest in which their scientists are active;

4. Persons wishing to visit Sites of Special Scientific Interest should consult their national offices responsible for the administration of Antarctic expeditions;

5. Until such time as the Recommendations designating Sites of Special Scientific Interest become effective in accordance with Article IX of the Antarctic Treaty, they should, as far as possible, be considered as guidelines.

RECOMMENDATION VIII - 4

SITES OF SPECIAL SCIENTIFIC INTEREST

INTERIM GUIDELINES

The Representatives,

Recalling Recommendation VII-3;

Noting Recommendation VIII-3;

Noting with appreciation the interim response of the Scientific Committee on Antarctic Research (SCAR) to paragraph 1 of Recommendation VII-3;

Noting that management plans have been prepared for certain Sites of Special Scientific Interest;

Considering that it would be advantageous to gather experience of the practical effect of management plans for certain sample Sites;

Recommend to their Governments that they voluntarily take account of the management plans annexed to this Recommendation, for the following Sites:

Site No. 1: Cape Royds, Ross Island

Site No. 2: Arrival Heights, Hut Point Peninsula, Ross Island

Site No. 3: Barwick Valley, Victoria Land

Site No. 4: Cape Crozier, Ross Island

Site No. 5: Fildes Peninsula, King George Island, South Shetland Islands

Site No. 6: Byers Peninsula, Livingston Island, South Shetland Islands

Site No. 7: Haswell Island.

SITE OF SPECIAL SCIENTIFIC INTEREST NO. 1

CAPE ROYDS, ROSS ISLAND

Management Plan

(i) Description of Site

All that area of Cape Royds west of a line drawn from the south coast of the Cape through Flagstaff Hill to the south eastern tip of Pony Lake, and the west shoreline of this lake; and south of a line drawn from the western extremity of Pony Lake 280° True to the coast. The boundaries, which are demarcated, are shown on the attached map.

(ii) Reason for designation

This area supports the most southerly Adélie Penguin (Pygoscelis adeliae) colony known, the survival of which is marginal. The population declined rapidly from 1956 following interference by man until 1963 when United States and New Zealand authorities agreed to restrict activities and develop a management plan for the area. It is considered important to continue study of this colony under controlled conditions, at least until the penguin population has recovered to its estimated normal pre-1956 (pre-man) level.

(iii) Outline of research

A long-term study of the population dynamics began in 1969 and is expected to continue.

(iv) Date of expiry of designation

30 June 1981.

(v) Access points

The Site should not be entered during the period of penguin occupation (approximately mid-October to March) except by the marked tracks. Only scientists engaged in the population studies should enter the Site during this period. Visitors to Cape Royds should not enter the Site. Photographs of the colony, except for scientific purposes, should be taken from the boundaries of the Site.

(vi) Pedestrian and vehicular routes

Vehicles should not enter the Site. Pedestrians should keep to the marked tracks and not move through the populated areas except as necessary in the course of scientific investigations. Helicopters and low-flying aircraft should avoid the penguin colony in accordance with the Agreed Measures for the Conservation of Antarctic Fauna and Flora.

(vii) Other kinds of scientific investigations which would not cause harmful interference

Other kinds of scientific investigations should not be undertaken while penguins occupy the Site.

(viii) Scientific sampling

Taking samples of the bird population by killing, capture, or taking of eggs should be done only for a compelling scientific purpose and in accordance with the Agreed Measures for the Conservation of Antarctic Fauna and Flora.

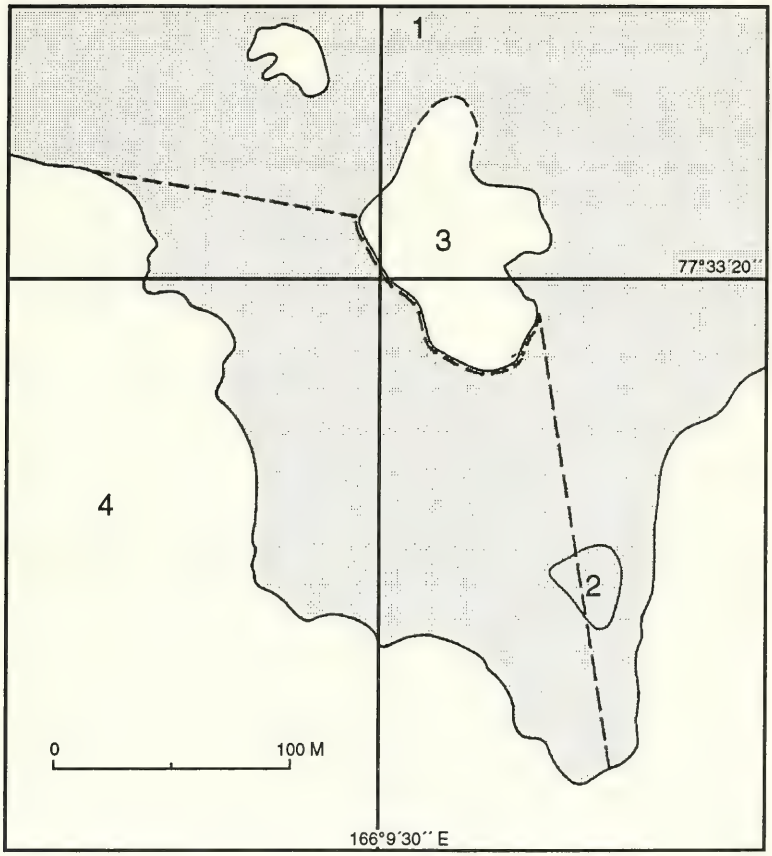
(ix) Other restraints

The following activities should be avoided:

1. Landscaping and removing surface material;

2. Construction of huts or buildings;

3. The depositing of any pieces of equipment or material that would in any way hinder re-occupation of nests by penguins.



No. 1:

1. Cape Royds
   Cap Royds
   Мыс Ройдс
   Cabo Royds

2. Flagstaff Hill
   Colline Mât de Drapeau
   Гора Флагстафф
   Colina Asta de Bandera

3. Pony Lake
   Lac Poney
   Озеро Пони
   Lago Haco

4. McMurdo Sound
   Détroit McMurdo
   Залив Мак-Мердо
   Estrecho McMurdo

SITE OF SPECIAL SCIENTIFIC INTEREST NO. 2

ARRIVAL HEIGHTS, HUT POINTS PENINSULA, ROSS ISLAND

Management Plan

(i) Description of Site

All that area of Arrival Heights enclosed within a line drawn from Trig T510 north-west over First Crater to the 500 foot contour, then north along this contour to a point immediately west of Second Crater, then around the lip of this crater and south to Trig T510. The boundary, which is demarcated, is shown on the attached map.

(ii) Reason for designation

This area is an electromagnetically and natural "quiet site" offering ideal conditions for the installation of sensitive instruments for recording minute signals associated with upper atmosphere programmes.

(iii) Outline of research

Upper atmosphere investigations associated with auroral and geomagnetic studies.

(iv) Date of expiry of designation

30 June 1981.

(v) Access points

None are defined but movement within the area by vehicles or personnel other than those directly concerned with the investigations should be kept to the minimum necessary for implementing the programme.

(vi) Pedestrian and vehicular routes

Vehicles and pedestrians should keep to the tracks shown on the attached map.

(vii) Other kinds of scientific investigations which would not cause harmful interference

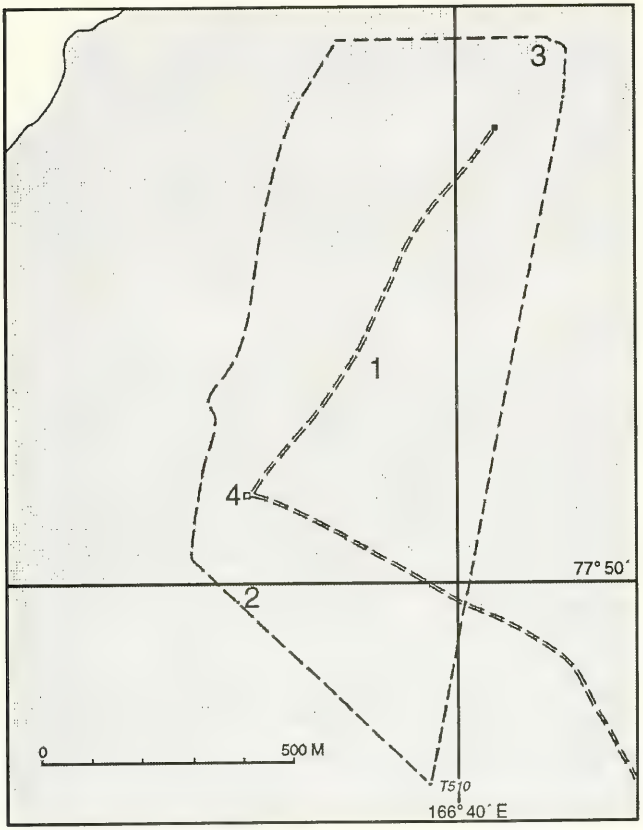
Scientific investigations other than those associated with the upper atmosphere programme should be kept to a minimum.

(viii) Scientific sampling

Not applicable.

(ix) Other restraints

No R. F. transmitting equipment other than low power transceivers for local essential communication may be installed within this Site. Every precaution should be taken to ensure that electrical equipment is adequately suppressed and correctly installed to keep man-made electrical noise to an absolute minimum.



No. 2:

1. Arrival Heights
   Colline de l'Arrivée
   Гора Аррайвал
   Alturas Arribo
2. First Crater
   Premier Cratère
   Первый Кратер
   Crater Primero
3. Second Crater
   Deuxième Cratère
   Второй Кратер
   Crater Segundo
4. Radar Station
   Station Radar
   Радарная Станция
   Estación Radar

SITE OF SPECIAL SCIENTIFIC INTEREST NO. 3

BARWICK VALLEY, VICTORIA LAND

Management Plan

(i) Description of Site

The Site includes the greater part of Barwick Valley, Victoria Land, and contains parts of several glaciers, exposed soils, a lake about 3 km wide and 16 km long and a connecting stream about 5 km long leading to Lake Vashka. It is bordered on the south, west and north by the Olympus, Willett, and Clare Ranges respectively. The boundary of the Site approximates to an irregular pentagon enclosing about 325 km^2. The Site is defined by lines joining Skew Peak (77° 13′S, 160° 43′E), Sponsors Peak (77° 18′S, 161° 24′E), a point on the Insel Range (77° 24′S, 161° 26′E), a point in the Apocalypse Peaks (77° 24′S, 160° 46′E), Mount Bastion (77° 19′S, 160° 34′E) and Skew Peak. The boundaries are shown on the attached map.

(ii) Reason for Designation

Barwick Valley is one of the least disturbed and contaminated of the Dry Valleys of Victoria Land, which are environmentally unique and possess extreme polar desert ecosystems. The Site is important as a reference base against which to measure changes in comparable ecosystems of the other Dry Valleys where a considerable variety of scientific investigations have been conducted regularly over the past decade. It is also expected to be of use in connection with global environmental monitoring.

(iii) Outline of research

Investigations are proposed of the microbiology, bacteriology, mycology (especially of yeasts and moulds), and of the terrestrial and aquatic ecosystems, with special programmes to establish baseline measurements for biological and environmental monitoring.

(iv) Date of expiry of designation

30 June 1981.

(v) Access points

Access should be by helicopter to Wright Valley, thence into the Barwick Valley Site on foot past Lake Vashka.

(v) Pedestrian and vehicular routes

Vehicles should not be used. Pedestrian routes should keep to well-drained ground avoiding streams and the lake margins as much as possible.

(vii) Other kinds of scientific investigations which would not cause harmful interference

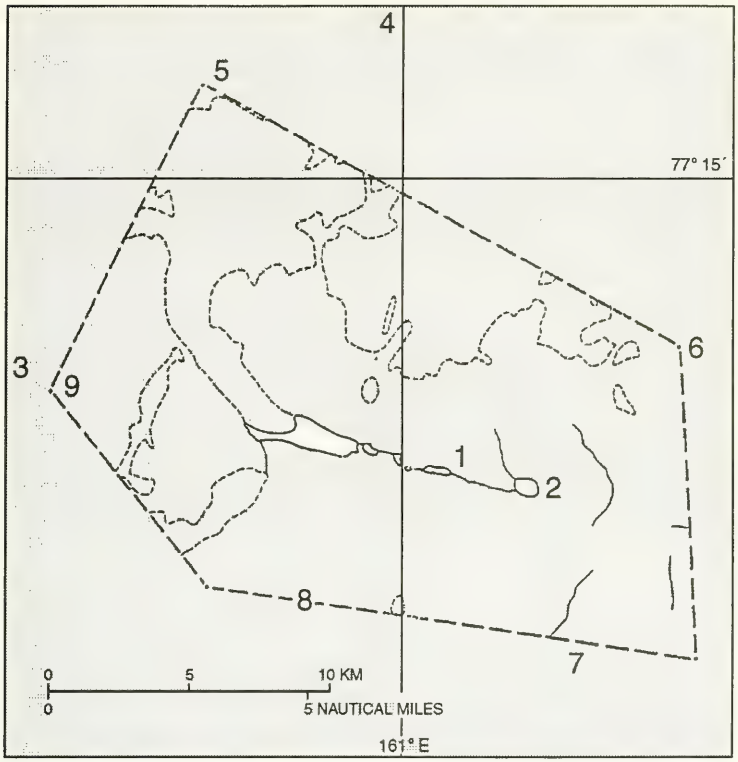
Geological, pedological, and glaciological studies except those which would introduce exotic species and those which would disrupt or damage the existing ecosystems.

(viii) Scientific sampling

Scientific sampling in the Site should be restricted to that which can be accomplished without introducing new organisms, including micro-organisms, and without disturbing the environment.

(ix) Other restraints

Overflight of the Site should be avoided. Aircraft landing and vehicle parking should be kept well outside the boundaries of the Site. Field activities should be kept to a minimum. Permanent field camps, landfill disposal, and other activities which would introduce new materials or organisms, including micro-organisms, into the Site should be avoided. All materials carried into the Site should be removed.



No. 3:

1. Barwick Valley
   Vallée Barwick
   Долина Барик
   Valle Barwick
2. Lake Vashka
   Lac Vashka
   Озеро Вашка
   Lago Vashka
3. Willett Range
   Chaîne Willett
   Хребет Виллет
   Cordillera Willett
4. Clare Range
   Chaîne Clare
   Хребет Клэр
   Cordillera Clare
5. Skew Peak
   Pic Oblique
   Гора Скъю
   Pico Oblicuo
6. Sponsors Peak
   Pic Garants
   Пик Спонсорс
   Pico Fiadores
7. Insel Range
   Chaîne Insel
   Пики Инзелъ
   Cordillera Insel
8. Apocalypse Peak
   Pic Apocalypse
   Пик Апокалипс
   Pico Apocalipsis
9. Mount Bastion
   Mont Bastion
   Гора Бастион
   Monte Bastion

SITE OF SPECIAL SCIENTIFIC INTEREST NO. 4

CAPE CROZIER, ROSS ISLAND

Management Plan

(i) Description of Site

The Site comprises 40 km^2 and includes the land areas where the Adélie Penguins (Pygoscelis adeliae) nest and the adjacent fast ice where the Emperor Penguins (Aptenodytes forsteri) annually breed. It is bounded by lines joining 77° 28′S, 169° 20′E, 77° 28′S, 169° 28′E, 77° 31′S, 169° 28′E, 77° 31′S, 169° 20′E; and also includes the land area lying north of a line from 169° 20′ E, 77° 28′S to the summit of Post Office Hill and north-east of a line which bears 315° True from the summit of Post Office Hill to the coast. The boundaries of the Site, the access track and road, the helicopter landing place and refuge hut are indicated on the attached map.

(ii) Reason for designation

The penguin colonies are the subject of long-term studies of population dynamics and social behaviour, and are relatively accessible by air from McMurdo Station and Scott Base. Access to the Site should be restricted to scientists engaged in investigations within the Site.

(iii) Outline of research

Studies of the Emperor and Adélie Penguin populations and their ethology, life cycles, physiological adaptation and natural population fluctations. Detection of possible changes in their biological characteristics which may be due to man-induced changes in the environment.

(iv) Date of expiry of designation

30 June 1981.

(v) Access points

Access should be at points on the boundary closest to the refuge hut and the helicopter landing place.

(vi) Pedestrian and vehicular routes

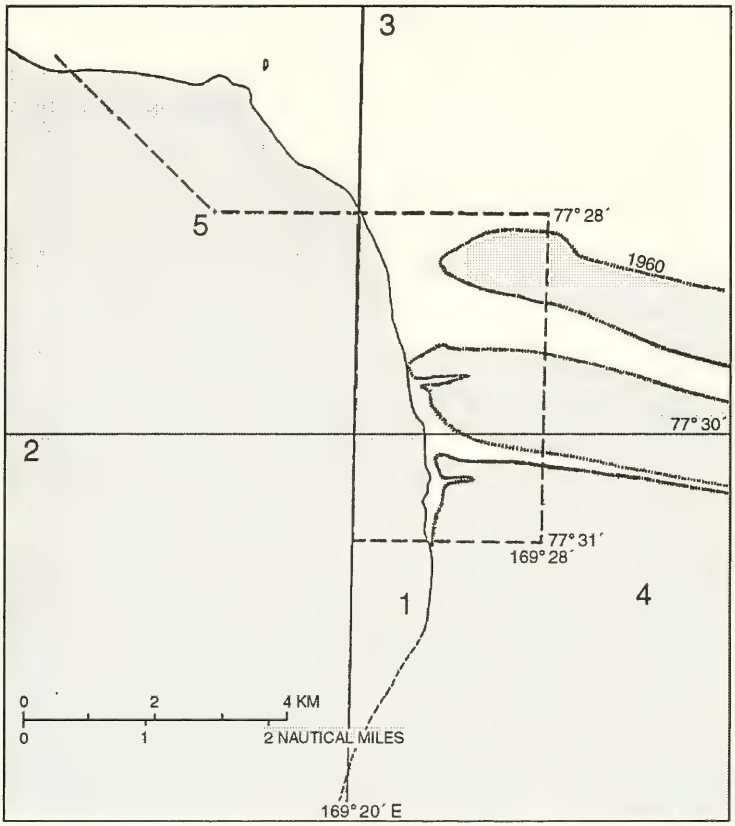
Helicopters and low-flying aircraft should avoid the Site. Vehicles should not enter the Site and should approach the Site boundary, when serving authorised activities, on courses at right angles to the boundary orientation. Pedestrian movement within the Site should be limited to the shortest routes consistent with the scientific activity.

(vii) Other kinds of scientific investigations which would not cause harmful interference

Biological, pedological, and geological observations except those which would cause harm to the birds or interfere with the breeding success of the penguin colonies. As far as possible such studies should be made at times when the Adélie Penguin colony is absent or when the Emperor Penguin colony is at least 1 km from the locality under scientific consideration.

(viii) Scientific sampling

Taking samples of the bird populations by killing, capture, or taking of eggs should be done only for a compelling scientific purpose and in accordance with the Agreed Measures for the Conservation of Antarctic Fauna and Flora. Close inspection of birds, including photography, or taking blood or other biological samples, should be kept to a minimum.



No. 4:

1. Cape Crozier
   Cap Crozier
   Мыс Крозир
   Cabo Crozier
2. Ross Island
   Ile Ross
   Полуостров Росса
   Isla Ross
3. Ross Sea
   Mer de Ross
   Море Росса
   Mar de Ross
4. Ross Ice Shelf
   Plateforme de Glace Ross
   Шельфовый ледник Росса
   Barrera de Ilielo Ross
5. Post Office Hill
   Collino Bureau de Poste
   г. Пост-Оффис
   Colina Casa de Correos

SITE OF SPECIAL SCIENTIFIC INTEREST NO. 5

FILDES PENINSULA, KING GEORGE ISLAND, SOUTH SHETLAND ISLANDS

Management Plan

(i) Description of Site

The two areas on Fildes Peninsula shown on the attached map will be demarcated.

(ii) Reason for designation

The unique fossil ichnolites found in these areas are located close to two permanent scientific stations which have been visited frequently by tourist groups. The areas also contain representative sequences of Tertiary Strata.

(iii) Outline of research

The main object of the research programme is to describe the Tertiary stratigraphic sequences and to understand the geological evolution of this part of the Antarctic Peninsula.

(iv) Date of expiry of designation

30 June 1981.

(v) Access points

None are defined.

(vi) Pedestrian and vehicular routes

Vehicles and helicopters should not enter the Site except in an emergency.

(vii) Other kinds of scientific investigations which would not cause harmful interference

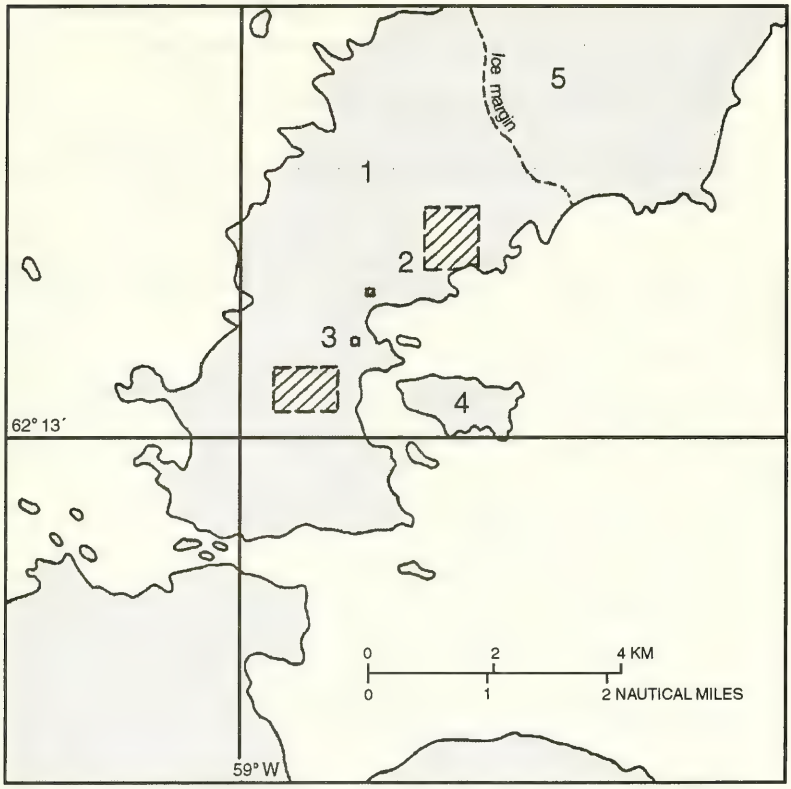
Scientific research other than geological should be kept to a minimum.

(viii) Scientific Sampling

Samples of rocks should only be taken for compelling scientific purposes.

(ix) Other restraints

Buildings and other facilities should not be erected in the Site.



No. 5:

1. Fildes Peninsula
   Presqu'ile Fildes
   Полуостров Файлдс
   Peninsula Fildos
2. Base Bellingshausen
   Base Bellingshausen
   Научная станция Веллингсгаузен
   Base Bellingshausen
3. Base P. Frei
   Base P. Frei
   Научная станция Президент-фрей
   Base P. Frei
4. Ardley Island
   Ile Ardley
   Остров Ардлеи
   Isla Ardley
5. King George Island
   Ile du Roi George
   Остров Кинг-Джордж (Ватерлоо)
   Isla Veinticinco de Mayo
   Isla Rey Jorge

SITE OF SPECIAL SCIENTIFIC INTEREST NO. 6

BYERS PENINSULA, LIVINGSTON ISLAND SOUTH SHETLAND ISLANDS

Management Plan

(i) Description of Site

The Site comprises four areas of sedimentary and fossiliferous strata on Byers Peninsula. These areas are shown on the attached map.

(ii) Reason for designation

The fossils found in this area provide evidence of the former link between Antarctica and the other Southern Continents. A long-term paleontological research programme is in progress. It is important to protect these Jurassic and Cretaceous rocks from being used as building materials or as souvenirs.

(iii) Outline of research

A long-term research programme was established in 1964. The main objectives are the description of sediments and fossils found in this area.

(iv) Date of expiry of designation

30 June 1981.

(v) Access points

None are defined.

(vi) Pedestrian and vehicular routes

Vehicles should not enter the Site except in an emergency.

(vii) Other kinds of scientific investigations which would not cause harmful interference

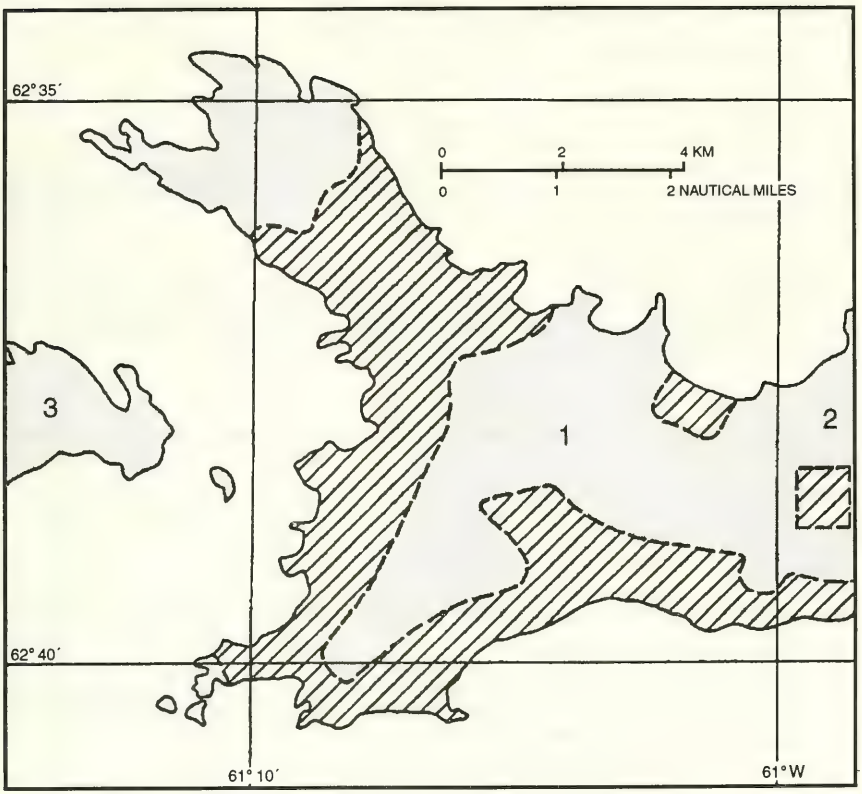
Scientific research other than geological should be kept to a minimum.

(viii) Scientific sampling

Samples of rocks or biological specimens should only be taken for compelling scientific purposes.

(ix) Other restraints

Buildings and other facilities should not be erected in the Site.



No. 6:

1. Byers Peninsula
   Presqu'île Byers
   Полуостров Байерс
   Península Byers
2. Livingston Island
   Ile Livingston
   Остров Ливингстон (Смоленск)
   Isla Livingston
3. Rugged Island
   Ile Rugged
   Остров Раггед
   Isla Rugosa

SITE OF SPECIAL SCIENTIFIC INTEREST NO. 7

HASWELL ISLAND

Management Plan

(i) Description of Site

The Site consists of Haswell Island (66° 31′S, 93° 00′E), about 1 km^2 in area, the largest of a group of islands lying close to Mirny station, together with its littoral zone and the area of fast ice, when present, lying within the delimitation shown on the attached map.

(ii) Reason for designation

The Site is an exceptionally prolific and representative breeding locality for all the species of birds which occur in this part of the Antarctic (five species of petrel (Procellariiformes), one species of skua (Catharacta skua), and one species of penguin (Pygoscelis adeliae)). The Site provides exceptional opportunities for research and needs protection in view of its close proximity to a large Antarctic station.

(iii) Outline of research

A long-term biological programme associated with the bird colonies and studies of the inshore marine biology are expected to continue in the Site.

(iv) Date of expiry of designation

30 June 1981.

(v) Access points

The Site may be entered from any direction but access should cause minimum disturbance to the bird colonies.

(vi) Pedestrian and vehicular routes

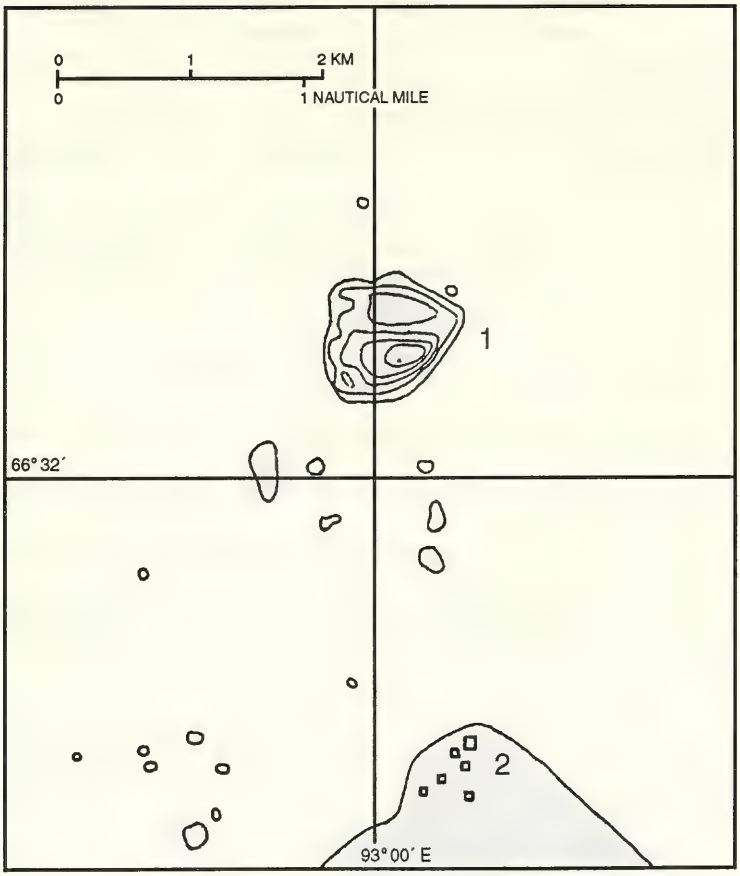
Vehicles should not enter the Site. Pedestrians should not move through the populated areas except as necessary in the course of scientific investigations. Helicopters and low-flying aircraft should avoid the bird colonies in accordance with the Agreed Measures for the Conservation of Antarctic Fauna and Flora.

(vii) Other kinds of scientific investigations which would not cause harmful interference

Any scientific investigation which will not cause significant disturbance to the biological programmes for which the Site has been designated.

(viii) Scientific sampling

Taking samples of the bird population by killing, capture, or taking of eggs should be done only for a compelling scientific purpose and in accordance with the Agreed Measures for the Conservation of Antarctic Fauna and Flora.



No. 7:

1. Haswell Island
   Isle Haswell
   Остров Хасузлл
   Isla Haswell
2. Mirny Station
   Station Mirny
   Научная станция Мирный
   Estacíon Mirny

RECOMMENDATION VIII - 6

ANNUAL EXCHANGES OF INFORMATION

The Representatives,

Recalling Articles III and VII of the Antarctic Treaty;

Noting that numerous recommendations of Consultative Meetings have established requirements for exchange of information between Governments;

Desiring to consolidate the requirements for periodic exchanges of information into s standard annual report;

Conscious that other Recommendations, including Recommendations I-I, I-III, I-VII, I-XIII, II-I, II-VIII, IV-27,VI-3, VI-7, and VII-7 provide for exchanges of information on an occasional basis or outside the annual reports exchanged between Governments;

Recommend to their Governments that:

1. They adopt the Annex to this Recommendation as the standard format for the annual exchanges of information between Governments,

2. They consider that the provisions set forth in the Annex satisfy the requirements for exchanges of information in Recommendations I-VI, II-IV, II-VI, III-I, III-II, IV-23, VI-2, VI-6, VI-12, and VI-13;

3. They exchange the report described in the Annex through diplomatic channels, not later than 30 November each year;

4. They report prior to 30 June in accordance with Recommendation II-VI on extensions, reductions or other modifications in the development of the activities previously reported;

5. Until such time as the Agreed Measures for the Conservation of Antarctic Fauna and Flora become effective, the information exchange requirements set forth in Recommendation IV-19 should be considered as an interim guideline and may be added to the Annex.

[Annex to RECOMMENDATION VIII - 6]

STANDARD FORMAT FOR THE ANNUAL EXCHANGES OF INFORMATION

1. Information in as complete a form as possible under the categories listed below is to be exchanged as early as possible but in no case later than 30 November each year.

2. Under Recommendation II-VI any extensions, reductions or other modifications of activities (in the categories marked below with an asterisk (*)) previously reported are to be furnished as soon as possible and in any case prior to 30 June following the season of activity.

3. If a category is not applicable to the activities of a particular country (for example, it has no airfields or does not intend to use research rockets) this fact should be stated.

I.* The names, types, numbers, descriptions, and armament of ships, aircraft, and other vehicles, introduced, or to be introduced, into the Antarctic Treaty Area, and information on military equipment, if any, and its location in the Area. (List only vehicles used for transport to and from Antarctica. Vehicles at individual stations are described under category VIII below.)

II.* Dates of expeditions leaving for, and arriving in, the Antarctic Treaty Area, duration of stay, itinerary to and from the Area and routes followed within the Area.

III.* The names, locations, and dates of opening of the Party's bases and subsidiary stations established or planned to be established in the Antarctic Treaty Area, listed according to whether they are for summer and/or winter operations.

IV.* The names of the officers in charge of each of these bases, subsidiary stations, ships and aircraft; the number, occupations and specialisations of personnel (including any designated by other Governments), who are or will be stationed at each of these bases and subsidiary stations and on board these ships and aircraft, including the number of personnel who are members of the military services, together with the rank of any officers and the names and professional affiliations of personnel engaged in scientific activities:

A.* Officers in charge of bases.

B.* Officers in charge of ships.

C.* Officers in charge of aircraft.

D.* Number, occupations and specialisations of personnel:

1.* Summer personnel (listed according to base or ship at which working);

2.* Winter personnel (listed according to base at which working).

E.* Number of personnel who are members of the military services together with rank of any officers.

F.* Names and professional affiliation of personnel engaged in scientific activities (listed according to base or ship at which working. It would be useful to list each person's scientific disciplines as well as his affiliation).

V.* The number and types of armaments possessed by personnel.

VI.* The programme of work, including scientific investigation, being done and planned at each of these bases and subsidiary stations and on board those ships and aircraft; and also the area or areas of operation to be covered by such programme (this may be included as an Annex).

VII.* Principal scientific equipment, which may be listed according to the base at which it is customarily used (this may be included as an Annex).

VIII. Transportation facilities and communication equipment for use within the Antarctic Treaty Area:

A.* Surface, marine, and air transport vehicles at each base.

B.* Description of communications facilities using the standard form in accordance with Recommendation VI-2.

C. Description of airfields in accordance with Recommendation III-I, including particulars of location, operating conditions and limitations, radio aids to navigation, facilities for radio communications and instrument landing (this may be included as an Annex).

IX.* Facilities for rendering assistance (medical and transport services and shelter available in emergencies).

X.* Notice of any expeditions to Antarctica not organised by the Party but organised in, calling at, or proceeding from the Party's territory (including tourism in accordance with Recommendations IV-27 and VI-7).

XI.* Description of unoccupied refuges in accordance with Recommendation III-II, including name, position, description of location, date established, date last examined and estimate of available accommodation, facilities, food, fuel, and supplies of other kinds (this may be included as an Annex).

XII. Annual return of the numbers of each species killed or captured in the Antarctic Treaty Area in accordance with Article XII of the Agreed Measures for the Conservation of Antarctic Fauna and Flora, using the format annexed to Recommendation IV-19 (this may be included as an Annex).

XIII. Notice of the intended use of radio-isotopes in scientific investigations in the Antarctic Treaty Area. (Note: under Recommendation VI-6 this information is to be provided by Consultative Parties as early as possible, preferably six months in advance, but in any case annually.)

XIV. Notice of intended use of scientific research rockets in the Antarctic Treaty Area in accordance with Recommendation VI-12 including inter alia geographical co-ordinates of the place of launching; the time and date of launching or, alternatively, the approximate period of time during which it is planned to carry out the launchings; the direction of launching; the planned maximum altitude; the planned impact area; the type and other specifications of the rockets to be launched, including possible residual hazards; the purpose and research programme of the rocket.

XV.* Notice of ships which are carrying out substantial oceanographic research programmes in the Antarctic Treaty Area, in accordance with Recommendation VI-13 including information required under categories I, II, IV, VI, and VII above.

RECOMMENDATION VIII -7

CO-OPERATION IN TRANSPORT

The Representatives,

Recalling Recommendation VII-8;

Recognizing that access to Antarctica by long-range aircraft combined with intracontinental feeder routes by smaller aircraft would facilitate new levels of co-operation and flexibility in research;

Noting the interest taken by the Scientific Committee on Antarctic Research (SCAR) in the potential benefits to be derived from a co-operative air transport system;

Recommend to their Governments that:

1. They request their offices responsible for the administration of Antarctic expeditions to review their scientific programmes in order to identify the ways in which a cooperative air transport system might benefit them and to inform SCAR through their representatives on the SCAR Working Group on Logistics;

2. They request SCAR, through their National Antarctic Committees, to review the available transport resources and the potential requirements with respect to a co-operative air transport system and to bring their conclusions to the attention of the Consultative Parties.

RECOMMENDATION VIII - 8

ACTIVITIES OF STATES THAT ARE NOT CONSULTATIVE PARTIES

The Representatives,

Recalling the principles and purposes of the Antarctic Treaty;

Reaffirming that it is in the interest of all mankind that Antarctica shall continue forever to be used exclusively for peaceful purposes and shall not become the scene or object of international discord;

Recognizing that the Antarctic Treaty places a special responsibility on the Contracting Parties to exert appropriate efforts, consistent with the Charter of the United Nations, to the end that no one engages in any activity in the Antarctic Treaty Area contrary to the principles or purposes of the Treaty;

Considering paragraphs 15 to 17 of the Final Report of the Seventh Antarctic Treaty Consultative Meeting regarding activities in the Treaty Area by States that are not Contracting Parties;

Considering further that it is desirable for acceding States to approve existing and future Recommendations, which form an integral part of the Treaty regime;

Recommend to their Governments that:

1. They reaffirm the principles set forth in paragraphs 15 to 17 of the Final Report of the Seventh Antarctic Treaty Consultative Meeting in respect of activities by States that are not Contracting Parties to the Antarctic Treaty;

2. They urge the States that have or will become Parties to the Antarctic Treaty to approve the Recommendations adopted at Consultative Meetings in pursuance of the Treaty and subsequently approved by all the Contracting Parties whose representatives were entitled to participate in the meetings held to consider those measures.

RECOMMENDATION VIII - 10

ANTARCTIC MARINE LIVING RESOURCES

The Representatives,

Recalling Article IX, paragraph 1 (f) of the Antarctic Treaty;

Convinced that the Antarctic Treaty Area contains significant concentrations of marine living resources;

Recognizing the need to promote and achieve, within the framework of the Antarctic Treaty, the objectives of protection, scientific study and rational use of these marine living resources;

Aware of the inadequacy of the information concerning the stocks of these living resources and of the need to develop a good scientific foundation for appropriate conservation measures;

Recommend to their Governments that:

1. They initiate or expand insofar as is practicable within their Antarctic scientific programmes, detailed studies of the biology, distribution, bio-mass and population dynamics and the ecology of Antarctic marine living resources;

2. They encourage further co-operation among the Consultative Parties in scientific studies of and programmes relating to Antarctic marine living resources;

3. They encourage studies which could lead to the development of effective measures for the conservation of Antarctic marine living resources in the Treaty Area;

4. They urge the Scientific Committee on Antarctic Research (SCAR), through their National Antarctic Committees, to continue its scientific work on these matters and to consider convening, as soon as practicable, a meeting to discuss current work and report on programmes for the study and conservation of Antarctic marine living resources;

5. They include the subject "Antarctic Marine Living Resources" on the agenda of the Ninth Consultative Meeting.

RECOMMENDATION VIII - 11

MAN'S IMPACT ON THE ANTARCTIC ENVIRONMENT

The Representatives,

Recalling Recommendations VI-4 and VII-1;

Desiring to minimize the impact of man on the Antarctic environment;

Noting with appreciation the response of the Scientific Committee on Antarctic Research (SCAR) to Recommendation VI-4;

Recommend to their Governments that:

1. To the greatest extent feasible they observe the code of conduct annexed to this Recommendation at their stations and for their activities within the Antarctic Treaty Area;

2. Through their National Antarctic Committees they invite SCAR, in co-operation with the Scientific Committee on problems of the Environment (SCOPE) of the International Council of Scientific Unions, to continue its interest in the development of scientific programmes for detecting and assessing changes occurring in the Antarctic environment.

[Annex to RECOMMENDATION VIII - 11]

CODE OF CONDUCT FOR ANTARCTIC EXPEDITIONS AND STATION ACTIVITIES

1. Waste disposal

The following are recommended procedures:

(a) Solid Waste

(i) Non-combustible, including chemicals (except batteries)

These materials may be disposed of at sea either in deep water or, if this is not possible, at specified sites in shallow water.

(ii) Batteries should be removed from the Antarctic Treaty Area.

(iii) Combustibles – Wood, wood products and paper should be incinerated, the ash being disposed of at sea.

– Lubricating oils may be burnt except those containing harmful additives which should be removed from the Antarctic Treaty Area.

– Carcasses and materials associated with imported experimental animals should be incinerated.

– All plastics and rubber products should be removed from the Antarctic Treaty Area.

(b) Liquid Waste

(i) Human waste, garbage and laundry effluents should, where possible, be macerated and be flushed into the sea.

(ii) Large quantities of photographic liquids should be treated for the recovery of silver and the residue should be flushed into the sea.

(c) The above procedures are recommended for coastal stations. Field sites supported from coastal stations should, where feasible, use the facilities of their supporting station. Inland stations should concentrate all waste in deep pits. Except as stated for inland stations, waste should not be buried.

(d) Waste containing radio-isotopes should be removed from the Antarctic Treaty Area.

(e) Every effort should be made to reduce the plastic packaging of products imported into the Antarctic Treaty Area.

(f) If possible the use of leaded fuels or fuels containing ethylene bromide and ethylene chloride should be avoided.

(g) When incinerators are used it is desirable to monitor the effluents.

2. Introduction of alien species

Procedures to safeguard against the introduction of alien species are covered by Article IX of the Agreed Measures for the Conservation of Antarctic Fauna and Flora.

3. Disturbance of breeding colonies and concentration of birds and mammals

Procedures to minimize such disturbances are covered by Article VII of the Agreed Measures for the Conservation of Antarctic Fauna and Flora.

4. Guidelines for Antarctic operating organizations planning major Antarctic Projects

(a) In the planning of major operations in the Antarctic Treaty Area an evaluation of the environmental impact of the proposed activity should be carried out by the Antarctic operating organizations concerned. Such an evaluation should include:

(i) A description of the proposed action and an assessment of its potential benefits and its possible impact on the relevant ecosystems.

(ii) A consideration of alternative actions which might alter the pattern of benefits versus adverse environmental effects expected to result from the action.

(b) These evaluations may be circulated for information through SCAR channels to all the states engaged in Antarctic activities.

RECOMMENDATION VIII - 12

DISPOSAL OF NUCLEAR WASTE

The Representatives,

Recalling Article V of the Antarctic Treaty;

Noting the increasing production of nuclear materials and the growing concern about the disposal of nuclear waste;

Bearing in mind the undertaking of Contracting Parties in Article X of the Antarctic Treaty to exert appropriate efforts, consistent with the Charter of the United Nations, to the end that no one engages in any activity in Antarctica contrary to the principles or purposes of the Treaty;

Desiring to preserve the unique quality of the Antarctic environment;

Recommend to their Governments that they continue to exert appropriate efforts to the end that no one disposes of nuclear waste in the Antarctic Treaty Area.

RECOMMENDATION VIII - 13

THE ANTARCTIC ENVIRONMENT

Recognizing that prime responsibility for Antarctic matters, including protection of the Antarctic environment, lies with the States active in the area which are parties to the Antarctic Treaty;

Noting the vulnerability of the Antarctic environment to human interference and that the consequences of major alterations would be of global significance;

Noting the distance of the Antarctic from the main sources of environmental pollution and hence its value for global baseline monitoring purposes;

Considering the role of the Antarctic as a global climatic regulator of major importance;

Noting that in seeking to fulfil these responsibilities Antarctic Treaty States have;

(a) negotiated the Agreed Measures for the Conservation of Antarctic Fauna and Flora;

(b) negotiated the Convention for the Conservation of Antarctic Seals (London 1972);

(c) invited the Scientific Committee on Antarctic Research (SCAR) of the International Council of Scientific Unions (ICSU):

(i) to identify the types and assess the extent of human interference which has occurred in the Treaty Area as a result of man's activities;

(ii) to propose measures which might be taken to minimise harmful interference;

(iii) to consider and recommend scientific programmes which will detect and measure changes occurring in the Antarctic environment;

Noting that a Code of Conduct for stations and activities within the Antarctic Treaty Area to minimise their harmful environmental effects has been adopted;

Noting that the Antarctic Treaty calls upon Contracting Parties to encourage co-operative working relations with those specialized agencies of the United Nations and other international organizations having a scientific or technical interest in the Antarctic;

Noting the cable to the Chairman of the Consultative Meeting from the Executive Director of the United Nations Environment Program (UNEP), circulated to the meeting on 10 June 1975;

Recommend to their Governments that:

1. In exercising their responsibility for the wise use and protection of the Antarctic environment they shall have regard to the following:

(a) that in considering measures for the wise use and protection of the Antarctic environment they shall act in accordance with their responsibility for ensuring that such measures are consistent with the interests of all mankind;

(b) that no act or activity having an inherent tendency to modify the environment over wide areas within the Antarctic Treaty Area should be undertaken unless appropriate steps

have been taken to foresee the probable modifications and to exercise appropriate controls with respect to the harmful environmental effects such uses of the Antarctic Treaty Area may have;

(c) that in co-operation with SCAR and other relevant agencies they continue, within the capabilities of their Antarctic scientific programmes, to monitor changes in the environment, irrespective of their cause, and to exercise their responsibility for informing the world community of any significant changes caused by man's activities outside the Antarctic Treaty Area;

2. They welcome the offer made by UNEP of co-operation in questions of scientific and technical interest relating to the Antarctic environment and invite SCAR, through their National Antarctic Committees, to continue its participation in the development of the relevant parts of the programme under consideration by the Scientific Committee on Problems of the Environment (SCOPE).

RECOMMENDATION VIII - 14

ANTARCTIC RESOURCES - EFFECTS OF MINERAL EXPLORATION

The Representatives,

Recalling Recommendation VII-6;

Bearing in mind the purposes and principles of the Antarctic Treaty;

Reaffirming that it is in the interest of all mankind that the Antarctic Treaty Area shall continue forever to be used exclusively for peaceful purposes and shall not become the scene or object of international discord;

Acknowledging that the Antarctic Treaty places a special responsibility upon the Contracting Parties to exert appropriate efforts, consistent with the Charter of the United Nations, to ensure that no one engages in any activity in the Antarctic Treaty Area contrary to the purposes or principles of the Treaty;

Concerned that mineral resource exploration and exploitation could adversely affect the unique environment of the Antarctic and of other ecosystems dependent on the Antarctic environment;

Noting the technological developments in polar mineral exploration and exploitation;

Convinced that further consultations on the questions concerning Antarctic mineral resources are desirable and, in the meantime, of the need for restraint while seeking timely agreed solutions by the Consultative Parties to problems raised by such questions; and noting the intention of their Governments to keep these matters under review in the light of possible actions by others;

Aware that available scientific information on the environmental effects of mineral exploration and/or exploitation in the Antarctic has been inadequately studied and that the Consultative Parties bear a special responsibility for environmental protection in the Antarctic Treaty Area;

Aware also that Antarctic geological structures have not been sufficiently investigated;

Recognizing the need for further study and consideration of these matters;

Resolved that the Consultative Parties should seek to develop an approach to the problems raised by the possible presence of valuable mineral resources in the Antarctic Treaty Area, bearing in mind the principles and purposes of the Antarctic Treaty;

Recommend to their Governments that:

1. The subject "Antarctic Resources - The Question of Mineral Exploration and Exploitation" be fully studied in all its aspects in relation to the Treaty and be the subject of consultation among them with a view to convening a special preparatory meeting during 1976, the terms of reference of which will be determined precisely through diplomatic channels; the special preparatory meeting to report to the Ninth Consultative Meeting;

2. They undertake to study the environmental implications of mineral resource activities in the Antarctic Treaty Area and other related matters, including joint studies among them, and that they exchange the results of such studies;

3. They invite SCAR through their National Antarctic Committees to:

(i) make an assessment on the basis of available information of the possible impact on the environment of the Treaty Area and other ecosystems dependent on the Antarctic environment if mineral exploration and/or exploitation were to occur there.

If possible and appropriate, Governments may wish to assist their National Antarctic Committees in this undertaking by appropriate means;

(ii) continue to co-ordinate national geological and geophysical research programmes in the Antarctic Treaty Area with the aim of obtaining fundamental scientific data on the geological structure of the Antarctic;

(iii) consider what further scientific programmes are necessary in pursuit of these objectives;

4. The subject "Antarctic Resources - The Question of Mineral Exploration and Exploitation" be placed on the Agenda of the Ninth Antarctic Treaty Consultative Meeting.

APPENDIX

RECOMMENDATION VIII - 1

SPECIALLY PROTECTED AREAS: LITCHFIELD ISLAND

The Representatives,

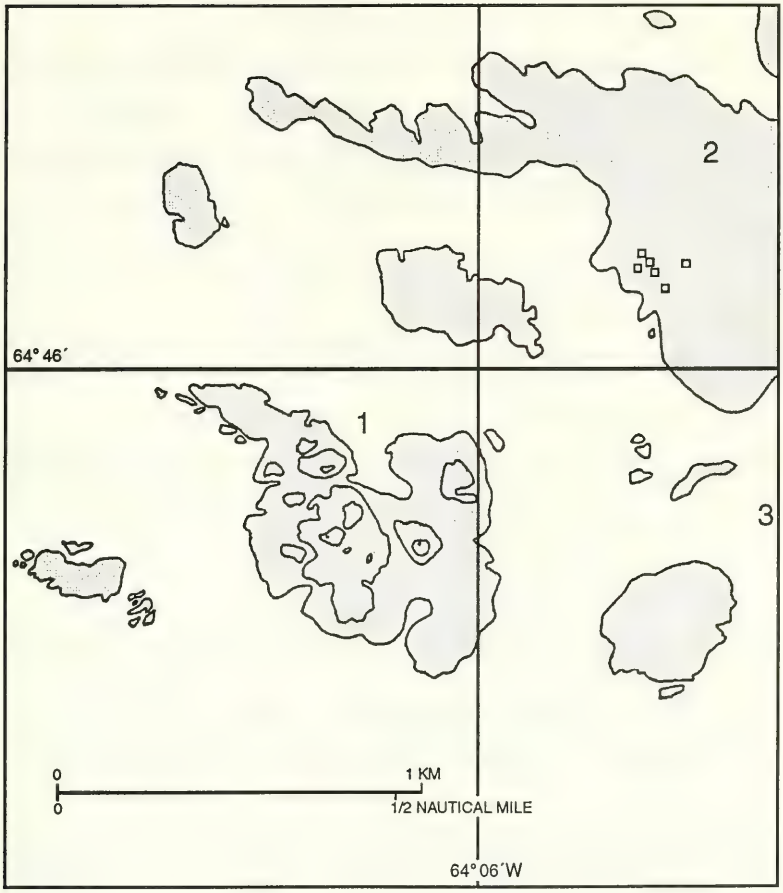
Considering that Litchfield Island, together with its littoral, possesses an unusually rich collection of marine and terrestrial life, is unique amongst the neighbouring islands as a breeding place for six species of native birds and provides an outstanding example of the natural ecological system of the Antarctic Peninsula area;

Recommend to their Governments that the following be included in Annex B, Specially Protected Areas, of the Agreed Measures for the Conservation of Antarctic Fauna and Flora:

SPECIALLY PROTECTED AREA NO. 17

Litchfield Island, Arthur Harbor, Palmer Archipelago
Lat. 66°16′S, Long. 64°06′W.

Description: A small island, about 2.5 km^2 in area. The Area is shown on the attached map.



No. 17:

1. Litchfield Island
   Ile Litchfield
   Остров Личфилд
   Isla Litchfield
2. Anvers Island
   Ile Anvers
   Остров Анверс
   Isla Amberes
3. Arthur Harbor
   Baie Arthur
   Бухта Артур
   Bahia Arthur

RECOMMENDATION VIII - 2

REVIEW OF SPECIALLY PROTECTED AREAS

The Representatives,

Recalling Recommendations III-VIII and VII-2;

Conscious of the need to revise the list of Specially Protected Areas in Annex B of the Agreed Measures for the Conservation of Antarctic Fauna and Flora in the light of experience;

Recalling the criteria established by paragraph 1 of Recommendation VII-2 for the selection of Specially Protected Areas;

Noting with appreciation the response of the Scientific Committee on Antarctic Research (SCAR) to paragraph 2 of Recommendation VII-2;

Recommend to their Governments that:

1. The following Recommendations, recommending certain defined areas for inclusion in Annex B, Specially Protected Areas, of the Agreed Measures for the Conservation of Antarctic Fauna and Flora, be terminated:

   (a) Recommendation IV-6 (Specially Protected Areas: Cape Crozier, Ross Island)

   (b) Recommendation IV-10 (Specially Protected Areas: Byers Peninsula)

   (c) Recommendation IV-12 (Specially Protected Areas: Fildes Peninsula)

   (d) Recommendation V-5 (Specially Protected Areas: Fildes Peninsula);

2. The numbers 6, 10 and 12 in Annex B of the Agreed Measures should not be used for other Specially Protected Areas.

RECOMMENDATION VIII - 5

PERMITS FOR ENTRY TO SPECIALLY PROTECTED AREAS

The Representatives,

Noting that Recommendation VI-8, paragraph 2, and Articles VI and VIII of the Agreed Measures for the Conservation of Antarctic Fauna and Flora enable Governments to issue permits for entry to Specially Protected Areas only for the collection of native mammals or birds (Article VI) or native plants (Article VIII, paragraph 2 (a));

Desiring to extend this facility to include other compelling scientific purposes;

Recommend to their Governments that:

1. Recommendation VI-8 be terminated;

2. The Agreed Measures for the Conservation of Antarctic Fauna and Flora be modified by the addition of a new subparagraph to Article VIII, paragraph 2, as follows:

   "(c) entry by their nationals, except in accordance with a permit issued under Article VI or under paragraph 2 (a) of the present Article or in accordance with a permit issued for some other compelling scientific purpose.";

3. Until such time as the Agreed Measures and this Recommendation become effective in accordance with Article IX of the Antarctic Treaty, this Recommendation should, as far as possible, be considered as a guideline.

Measures Approved or Recommended Under Article IX in Furtherance of Principles and Objectives of the Antarctic Treaty, London, 1977

Adopted at London 7 October 1977

Effective 8 September 1983

Primary source citation: TIAS 10735

[CERTAIN RECOMMENDATIONS OF THE NINTH ANTARCTIC TREATY CONSULTATIVE MEETING]

RECOMMENDATION IX-1

Antarctic Mineral Resources

The Representatives,

Recalling the provisions of the Antarctic Treaty, which establishes a regime for international co-operation in Antarctica, with the objective of ensuring that Antarctica should continue forever to be used exclusively for peaceful purposes and should not become the scene or object of international discord;

Bearing in mind the provisions of Article IV of the Treaty;

Convinced that the framework established by the Antarctic Treaty has proved effective in promoting international harmony in furtherance of the purposes and principles of the United Nations Charter, in ensuring the protection of the Antarctic environment, and on promoting freedom of scientific research in Antarctica;

Noting with thanks the Report of the Scientific Committee on Antarctic Research (SCAR) Group of Specialists entitled Preliminary Assessment of the Environmental Impact of Mineral Exploration/Exploitation in Antarctica (EAMREA);

Recognizing nevertheless that adequate scientific data concerning the harmful environmental effects of activities related to the exploration and exploitation of Antarctic mineral resources, should they occur, are not yet available;

Concerned that unregulated activities related to exploration and exploitation of mineral resources could adversely affect the unique environment of the Antarctic and other ecosystems dependent on the Antarctic environment;

Conscious that the Consultative Parties to the Antarctic Treaty in carrying out scientific research in the area have accumulated valuable experience and can substantially contribute to the protection of the environment and the rational use of Antarctic mineral resources, should exploration or exploitation thereof occur;

Aware of the special responsibilities of Consultative Parties to ensure that any activities in Antarctica, including commercial exploration and exploitation in the future, should they occur, should not become the cause of international discord, of danger to the unique Antarctic environment, of disruption to scientific investigation, or be otherwise contrary to the principles or purposes of the Antarctic Treaty;

Recommend to their Governments that:

1. They reaffirm the basic principles set forth in Recommendation VIII-14 of the Eighth Antarctic Treaty Consultative Meeting;

2. They take note with appreciation of the Report of the Group of Experts on Mineral Exploration and Exploitation annexed to the Report of the Ninth Consultative Meeting and make the best possible use of its conclusions and guidelines;

3. They continue to study the environmental implications of mineral resource activities in the Antarctic Treaty Area and hold at a time and place to be arranged through diplomatic channels a meeting of ecological, technological and other related experts, in accordance with Recommendation IV-24, with a view to developing scientific programmes aimed at:

(i) improving predictions of the impact of possible technologies for mineral exploration and exploitation in the Antarctic, as outlined in Section IIB of the Report of the Group of Experts,and in Section 5 of the SCAR/EAMREA Group Report;

(ii) developing measures for the prevention of damage to the environment or for its rehabilitation, in accordance with Section IIC of the Report of the Group of Experts;

4. They endorse the following principles elaborated at the Special Preparatory Meeting held in Paris from 28 June to 10 July 1976:—

(i) the Consultative Parties will continue to play an active and responsible role in dealing with the question of the mineral resources of Antarctica;

(ii) the Antarctic Treaty must be maintained in its entirety;

(iii) protection of the unique Antarctic environment and of its dependent ecosystems should be a basic consideration;

(iv) the Consultative Parties, in dealing with the question of mineral resources in Antarctica, should not prejudice the interests of all mankind in Antarctica;

5. They note that the provisions of Article IV of the Antarctic Treaty shall not be affected by the regime. It should ensure that the principles embodied in Article IV of the Antarctic Treaty are safeguarded in application to the area covered by the Antarctic Treaty;

6. They study the content of a future regime based on the principles contained in paragraphs 4 and 5 and on such further principles, rules and arrangements as may be agreed, taking full account of all proposals submitted to the IXth Consultative Meeting;

7. The subject "Antarctic Resources — The Question of Mineral Exploration and Exploitation" be the subject of intensified consultation among them and they urge the host Government of the Tenth Consultative Meeting to convene a meeting to consider legal and political aspects of mineral resource issues; this meeting to report to the Tenth Consultative Meeting on the results of its work;

8. They urge their nationals and other States to refrain from all exploration and exploitation of Antarctic mineral resources while making progress towards the timely adoption of an agreed regime concerning Antarctic mineral

resource activities. They will thus endeavour to ensure that, pending the timely adoption of agreed solutions pertaining to exploration and exploitation of mineral resources, no activity shall be conducted to explore or exploit such resources. They will keep these matters under continuing examination;

9. The subject "Antarctic Resources — The Question of Mineral Exploration and Exploitation" be placed on the Agenda of the Tenth Antarctic Treaty Consultative Meeting.

RECOMMENDATION IX-2

Antarctic Marine Living Resources

The Representatives,

Recalling the special responsibilities conferred upon the Consultative Parties in respect of the preservation and conservation of living resources in the Antarctic by virtue of Article IX paragraph 1(f) of the Antarctic Treaty;

Recalling further the history of action taken by Consultative Parties concerning conservation and protection of the Antarctic ecosystem including, in particular, Recommendations III-VIII, VIII-10, VIII-13 and IX-5;

Noting that concentrations of marine living resources are found in the Antarctic Treaty area and adjacent waters;

Aware of the need to compile more information with a view to developing a good scientific foundation for appropriate conservation measures and rational management policies for all Antarctic marine living resources;

Recognising the urgency of ensuring that these resources are protected by the establishment of sound conservation measures which will prevent overfishing and protect the integrity of the Antarctic ecosystem;

Concerned that interim guidelines for the protection and conservation of Antarctic marine living resources are desirable until such time as a definitive regime enters into force;

Convinced that provision for effective measures to conserve Antarctic marine living resources as well as for collection and analysis of the data necessary to develop such measures will require the early conclusion of a definitive conservation regime;

Recommend to their Governments that:

I

Scientific Research

1. To the greatest extent feasible, they cooperate broadly and comprehensively in scientific investigations, and in the exchange of information thereon, relating to the Antarctic marine environment and that they intensify as far as possible scientific research related to Antarctic marine living resources;

2. In planning their marine activities in the Antarctic, they have regard to the advantages that will accrue from coordination by them of their scientific investigations contributing to the BIOMASS programme;

3. They give sympathetic consideration to the provision of practical measures (such as ships, ship time, personnel and finance) in support of the implementation of the BIOMASS programme or other similar programmes;

4. They examine the possibility of integrating, in so far as is practicable, research vessel programmes with the activities of other vessels, and make available on vessels operating in the Antarctic, other than research vessels

contributing directly to the BIOMASS programme, time and facilities for routine observations aimed at extending the data base for the programme.

II

Interim Guidelines for the Conservation of Antarctic Marine Living Resources

1. They observe the following interim guidelines pending entry into force of the definitive regime for Antarctic Marine Living Resources:

(a) they cooperate as broadly and comprehensively as possible in the mutual exchange of statistics relating to catch of Antarctic Marine Living Resources;

(b) they should show the greatest possible concern and care in the harvesting of Antarctic Marine Living Resources so that it does not result in the depletion of stocks of Antarctic marine species or jeopardizing the Antarctic marine ecosystem as a whole;

(c) they urge those Governments which are not parties to the Antarctic Treaty and which engage in activities involving the use of the marine living resources of Antarctica to take account of these guidelines;

2. They review these interim guidelines as and when necessary and in any event following the conclusion of the definitive regime with a view to their future elaboration in the light of the provisions of the definitive regime.

III

Establishment of a Definitive Conservation Regime

1. A definitive regime for the Conservation of Antarctic Marine Living Resources should be concluded before the end of 1978.

2. A Special Consultative Meeting be convened in order to elaborate a draft definitive regime, and in particular:

(a) to determine the form of the definitive regime, including the question as to whether an international instrument such as a convention is necessary;

(b) to prepare, if necessary, draft rules of procedure for a subsequent decisive meeting for the establishment of the definitive regime;

(c) to decide on participation in such a meeting by States other than Consultative Parties which are actively engaged in research and exploitation of Antarctic Marine Living Resources and the participation, on an observer basis, of appropriate international organisations;

(d) to finalise the date and place of the decisive meeting;

(e) to take any other steps in order to facilitate the work of the decisive meeting referred to above.

3. The Special Consultative Meeting shall base its work on this recommendation and take account of the discussions at the Ninth Consultative Meeting, its report and the documents presented to it, and, in the elaboration of a draft definitive regime, shall take into account *inter alia* the following elements:

(a) the regime should explicitly recognise the prime responsibilities of the Consultative Parties in relation to the protection and conservation of the environment in the Antarctic Treaty area and the importance of the measures recommended by the Consultative Parties to this end;

(b) The provisions of Article IV of the Antarctic Treaty shall not be affected by the regime. It should ensure that the principles embodied in Article IV are safeguarded in application to the marine areas south of 60° South latitude;

(c) the regime should provide for the effective conservation of the marine living resources of the Antarctic ecosystem as a whole;

(d) the regime should cover the area of specific competence of the Antarctic Treaty;

(e) the regime should, however, extend north of 60° South latitude where that is necessary for the effective conservation of species of the Antarctic ecosystem, without prejudice to coastal state jurisdiction in that area;

(f) the regime should not apply to species already regulated pursuant to existing international agreements but should take into account the relationship of such species to those species covered by the regime.

RECOMMENDATION IX-3

Improvement of Telecommunications in the Antarctic

The Representatives,

Considering that requirements in the field of telecommunications as regards collection and dissemination of meteorological data, and the need for scientific, administrative and operational traffic have developed substantially since the second telecommunications meeting of experts of the Consultative Parties held in Buenos Aires in 1969;

Considering that the implementation of Recommendations VI-1 and VII-7, and participation in the programmes of the World Meteorological Organisation, particularly the World Weather Watch, require a thorough review and improvement of the network operating in the Antarctic;

Recommend to their Governments that they:

1. Compile comprehensive data, each for its own part, on the types of traffic, modes of transmission, timing, frequencies of their telecommunications schedules and current equipment of their telecommunications programmes in the Antarctic, as well as on projects in the process of implementation and proposed improvements, in particular by designating, where appropriate, stations capable of replacing others in the event of breakdown;

2. Forward all such data to each of the other Consultative Parties via diplomatic channels on the one hand and on the other by direct despatch to the departments concerned;

3. Arrange for a meeting of telecommunications experts to be held, on the initiative of the Government of the host country, before the Tenth Consultative Meeting, to analyse the data thus compiled, suggest desirable measures of harmonisation and put forward recommendations on improvements to be made in the operation of the telecommunications network in the Antarctic;

4. Request SCAR through their National Antarctic Committees to undertake, at the earliest opportunity, a study of the most recent applications of science and technology to the specific problems of the Antarctic in the field of propagation of radio waves, and to pass on its conclusions to the Consultative Parties prior to their Tenth Meeting or if necessary to the next Consultative Meetings.

RECOMMENDATION IX-4

Co-operation in Transport

The Representatives,

Recalling the appropriate provisions of the Treaty as well as Recommendation VIII-7:

Acknowledging the comprehensive report on transport resources and potential requirements delivered to the Fourteenth Meeting of the Scientific Committee on Antarctic Research (SCAR);

Concurring that the most effective use of aviation assets will be in co-ordinated air support projects (as circumstances permit) without major additional construction or investment;

Noting that new types of aircraft, equipment, and facilities are either being developed or likely to be introduced, and the continuing need for standardization of facilities and procedures to ensure effective co-ordination;

Recommend to their Governments that:

1. They request SCAR, through their National Antarctic Committees, to continue the work of the Sub-committee on Co-operative Air Transport System for Antarctica (CATSA) of the Working Group on Logistics;

2. They request their offices responsible for the administration of Antarctic expeditions to adopt, to the extent practicable, such measures for improved compatibility of facilities and procedures as SCAR might be able to suggest.

RECOMMENDATION IX-5

Man's Impact on the Antarctic Environment

The Representatives,

Recommend to their Governments that they approve the following declaration on the Protection of the Antarctic Environment:

The Governments participating in the Ninth Atlantic Treaty Consultative Meeting,

Deeply aware that the Antarctic environment is unique and vulnerable to contamination and disturbance;

Determined to protect the Antarctic environment from harmful interference;

Having particular regard to the conservation principles developed by the Scientific Committee on Antarctic Research (SCAR) of the International Council of Scientific Unions;

Recalling their obligation to exert appropriate efforts, consistent with the Charter of the United Nations, to the end that no one engages in any activity in Antarctica contrary to the principles or purposes of the Antarctica Treaty;

Declare as follows:

1. The Consultative Parties recognise their prime responsibility for the protection of the Antarctic environment from all forms of harmful human interference;

2. They will ensure in planning future activities that the question of environmental effects and of the possible impact of such activities on the relevant ecosystems are duly considered;

3. They will refrain from activities having an inherent tendency to modify the Antarctic environment unless appropriate steps have been taken to foresee the probable modifications and to exercise appropriate controls with respect to harmful environmental effects;

4. They will continue to monitor the Antarctic environment and to exercise their responsibility for informing the world community of any significant changes in the Antarctic Treaty Area caused by man's activities.

RECOMMENDATION IX-6

Oil Contamination of the Antarctic Marine Environment

The Representatives,

Recommend to their Governments that:

1. They consider the possibility of preparing reports concerning the pathways by which oil may reach the Antarctic marine environment as a result of man's maritime activities in the Antarctic;

2. They include in these reports proposals relating to practicable means, if any, by which such oil contamination might be reduced;

3. They consider the possibility of instituting, in association with appropriate organisations, a programme for the determination of baseline levels of contamination of the Antarctic marine environment by oil;

4. They provide such reports as they may have prepared to, and further consider this matter at, the Meeting of Experts recommended in paragraph 3 of Recommendation IX-1, with a view to making proposals concerning these matters for consideration at the next Consultative Meeting.

Measures Approved or Recommended Under Article IX in Furtherance of Principles and Objectives of the Antarctic Treaty, Washington, 1979

Adopted at Washington 5 October 1979

Recommendations X-2 through X-8 effective 8 April 1987; Recommendations X-1 and X-9 effective 16 November 1989

Primary source citation: Antarctic Treaty: Report of the Tenth Consultative Meeting, the U.S. Department of State, Washington, 1979

RECOMMENDATIONS ADOPTED AT THE TENTH ANTARCTIC TREATY CONSULTATIVE MEETING

X-1
Antarctic Mineral Resources

The Representatives,

Convinced of the need to preserve and further strengthen the international regime established in Antarctica by the Antarctic Treaty, which has for nearly two decades guaranteed the use of Antarctica exclusively for peaceful purposes, and in the interest of the development of international cooperation;

Aware of the responsibilities of the Consultative Parties to ensure that any activities in Antarctica, including mineral exploration and exploitation, should they occur, should be consistent with all the principles and purposes of the Antarctic Treaty system, including its objectives that activities in Antarctica should not become the cause of international discord, endanger the unique Antarctic environment, or disrupt scientific investigations;

Concerned that unregulated mineral resource activities could significantly harm the fragile Antarctic ecosystem;

Noting that decisions on possible mineral resource activities must take due account of the unique ecological and scientific value of Antarctica and the importance of Antarctica to the world environment;

Recognizing that available information is insufficient reliably to assess the possible environmental effects of many activities in the area of exploration and exploitation of mineral resources in Antarctica, and conscious of the need for developing research programs aimed at improving predictions of the possible impact of such activities in Antarctica and for promoting the development of monitoring programs aimed at detecting the impact of such activities on the Antarctic environment should such activities occur;

Convinced that informed decision-making on questions of mineral resource activities will usually require the availability of information from such programs;

Aware also of the necessity to obtain additional scientific information with a view to facilitating the development of measures related to the protection of the Antarctic environment from possible harmful impacts of mineral resource exploration and exploitation, should such activities occur;

Noting that a meeting of ecological, technological, and other related experts was held in Washington, D.C., 25 June to 29 June, 1979, as part of the Preparatory Meeting to the Tenth Consultative Meeting with a view to developing scientific programs aimed at improving predictions of the impact of possible technologies for mineral exploration and exploitation in the Antarctic, and developing measures for the prevention of damage to the environment or for its rehabilitation;

Recalling the provisions of Recommendations VIII-14 and IX-1;

Recognizing the necessity for progress towards the timely adoption of an agreed regime concerning Antarctic mineral resources;

Recommend to their Governments that:

1. They take note of the progress made toward the timely adoption of a regime for Antarctic mineral resources at the Tenth Antarctic Treaty Consultative Meeting and related meetings, and of the importance of this progress.

2. They continue consultations proceeding from the provisions of Recommendation IX-1 and from the provisions of the present Recommendation.

To this end, they should:

(i) Continue to develop a common understanding of the general purposes of the regime and to identify the specific elements of the regime needed to ensure achievement of those purposes;

(ii) Continue to give thorough examination to all of the elements necessary to ensure that the future regime will achieve its general purposes;

(iii) Hold a meeting before the Eleventh Consultative Meeting, preferably in the first half of 1980, to consider a regime for Antarctic mineral resources in its ecological, political, technological, legal and other aspects; and

(iv) in this regard, make the best possible use of the report of the Tenth Consultative Working Group on Antarctic Resources - The Question of Mineral Exploration and Exploitation: Legal and Political Aspects (which is annexed to the Final Report of the Tenth Consultative Meeting) and of the section of this Final Report which refers to the work of the Working Group on Antarctic Resources - The Question of Mineral Exploration and Exploitation: Scientific and Environmental Aspects.

3. The agreed regime for Antarctic mineral resources should be based upon provisions of paragraphs 1, 3, 4, and 5 of Recommendation IX-1 and on such further principles, rules and arrangements as may be subsequently agreed.

4. An agreed regime on Antarctic mineral resources should include inter alia means for:

(i) assessing the possible impact of mineral resource activities on the Antarctic environment in order to provide for informed decision-making;

(ii) determining whether mineral resource activities will be acceptable;

(iii) governing the ecological, technological, political, legal, and economic aspects of those activities in cases where they would be determined acceptable; including:

a) establishing, as an important part of the regime, rules relating to the protection of the Antarctic environment; and

b) requiring that mineral resource activities undertaken pursuant to the regime be undertaken in compliance with such rules.

5. Taking account of the Report of Ecological, Technological, and Other Related Experts on Mineral Exploration and Exploitation in Antarctica (Washington, June 1979), attached as an annex to the Report of the Tenth Consultative Meeting, they facilitate their research activities which would contribute to an improved understanding of relevant aspects of the Antarctic and its environment.

6. With a view to improving predictions of the environmental impacts of activities, events, and technologies associated with mineral resource exploration and exploitation in the Antarctic should such occur, they, through their respective National Antarctic Committees, encourage the Scientific Committee on Antarctic Research to define programs, taking account of the Experts Report (Washington, June 1979), with the objectives of:

a. retrieving and analyzing relevant information from past observations and research programs;

b. ensuring in relation to the needs for information identified by the Experts Report, that effective use is made of existing programs;

c. identifying and developing new programs that should have priority, taking account of the length of time required for results to become available.

7. Insofar as is feasible they support, as appropriate, their respective National Antarctic Committees and the offices administering their Antarctic research programs in developments arising from the previous paragraph.

8. The subject "Antarctic Resources - The Question of Mineral Exploration and Exploitation" be placed in the Agenda of the Eleventh Antarctic Treaty Consultative Meeting.

X-2
Antarctic Marine Living Resources

The Representatives,

Recalling the responsibilities of the Consultative Parties regarding the conservation of Antarctic marine living resources;

Recalling further the history of action taken by Consultative Parties concerning protection of the Antarctic ecosystem, including, in particular, Recommendations III-VIII, VIII-10, VIII-13, IX-2 and IX-5;

Aware of the continuing need to compile more information and data with a view to develop an adequate scientific basis for the development of rational management policies and the taking of effective conservation measures for all Antarctic marine living resources;

Welcoming progress made toward the elaboration of a definitive regime for the conservation of Antarctic marine living resources;

Reaffirming their commitment to the early conclusion of a definitive regime for the conservation of Antarctic marine living resources;

Recommend to their Governments that:

1. They seek early conclusion and entry into force of a Convention on the Conservation of Antarctic Marine Living Resources;

2. They identify, emphasize and cooperate in those research activities which will facilitate the effective operation of such a Convention once it is in force;

3. They provide practical support to facilitate the carrying out of these needed research activities, including the mutual exchange of statistics relating to catch of Antarctic marine living resources.

X-3
Improvement of Telecommunications in Antarctica and the Collection and Distribution of Antarctic Meteorological Data

The Representatives,

Recalling Recommendations VI-1, VI-3, and VII-7;

Noting that the Third Antarctic Treaty Meeting on Telecommunications held in Washington in September 1978 had described the telecommunications network for the exchange of meteorological data both within the Antarctic and between the Antarctic and Global Telecommunications System (GTS) of the World Weather Watch (WWW) as it existed in September 1978 (see Annexes 1, 2 and 3).

Taking account of the importance of Antarctic meteorological data to the WWW and the diminished value of such data if it is not available to users within and outside the Antarctic in accordance with the World Meteorological Organization (WMO) schedules for the receipt of raw and processed data;

Reaffirming the importance of the GTS for purposes of transmitting Antarctic meteorological data between Antarctic stations in cases where direct transmission within Antarctic is inhibited by ionospheric conditions;

Noting, with appreciation, the response of the Scientific Committee on Antarctic Research (SCAR) to Recommendation IX-3 and the improvement in Antarctic telecommunications that would follow if operators and offices administering Antarctic programs had available to them statements of the current telecommunications practices within and between national networks;

Recognizing that changing national requirements for Antarctic telecommunications, changing technology or budgetary constraints may lead to significant incompatibilities arising between national networks;

Recognizing that possible future trans-polar commercial air traffic and the steadily increasing amount of shipping in the Antarctic region may give rise to a changing pattern of needs for raw and processed meteorological data;

Affirming that developments in the collection and distribution of meteorological data should be reviewed from time to time;

Recommend to their governments that:

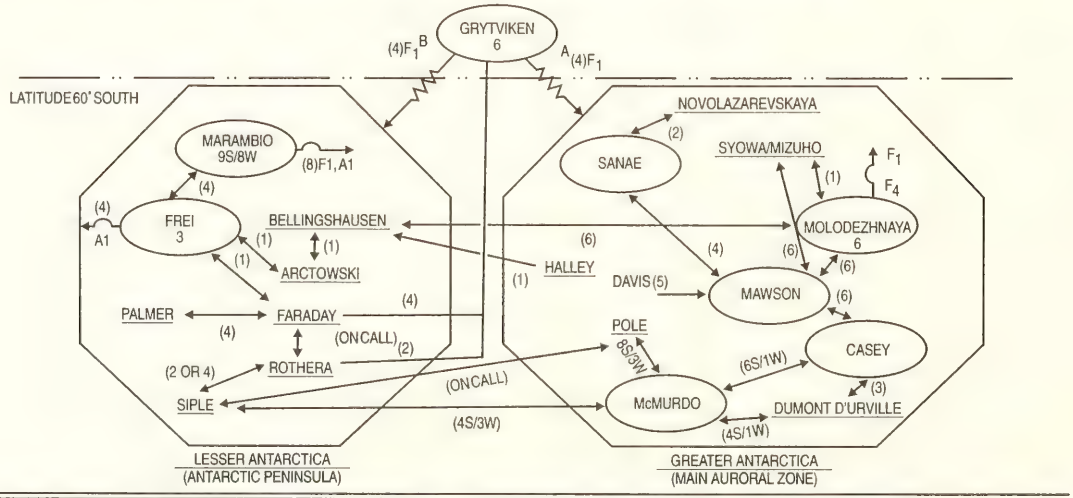
1. Taking account of the final report of the Third Antarctic Treaty Meeting on Telecommunications, they should strive to improve the system for the collection and distribution of Antarctic meteorological data having regard particularly to increasing efficiency, reliability and economy of effort; taking into account opportunities offered by new technology;

2. Each station undertaking meteorological observations should ensure that data are transmitted as soon as practicable after the observation;

3. Stations receiving these data for onward transmission to other Antarctic stations or to the GTS should forward such data with minimum delay;

4. In cooperation with other Antarctic stations and World Meteorological Centers, they continue regularly to monitor receipt of Antarctic data by, and its transmission within, the GTS;

EXISTING LINKS FOR THE DAILY INTERNATIONAL EXCHANGE OF METEOROLOGICAL DATA WITHIN THE ANTARCTIC AS OF SEPTEMBER 1978 (CORRECTED)



NAME
(S/W)

MAIN CENTERS WITH THE NUMBER OF STATIONS FROM WHICH DATA ARE COLLECTED AND BROADCAST BY (CQ)

TELECOMMUNICATION METHOD
(CONTACTS PER DAY, S/W)

S=SUMMER
W=WINTER

(S/W) — POINT TO POINT LINKS

(S/W) — BROADCAST BULLETINS APPROXIMATELY OMNIDIRECTIONAL (NOMINALLY CQ)

(S/W) — OMNIDIRECTIONAL (CQ) BROADCAST BULLETINS

BROADCAST TIMES
(MODE)

FREI
(CW) A1 : H + 05 (SYNOP)

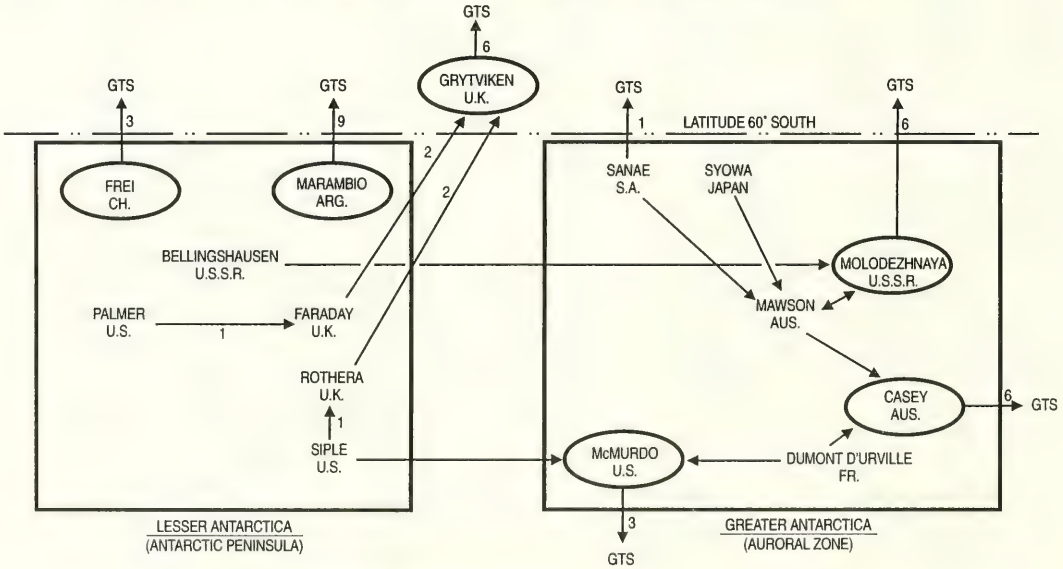
MARAMBIO
(CW/FSK) A1, F1 : H + 30 (SYNOP), H + 160 (TEMP)

GRYTVIKEN
(FSK) F1 : (A) H + 30 (SYNOP), H + 180 (TEMP)
(B) H + 45 (SYNOP), H + 175 (TEMP)

MOLODEZHNAYA
(FAX, FSK) F4, F1 : H + 45 (SYNOP), H + 180 (TEMP)

Annex 1

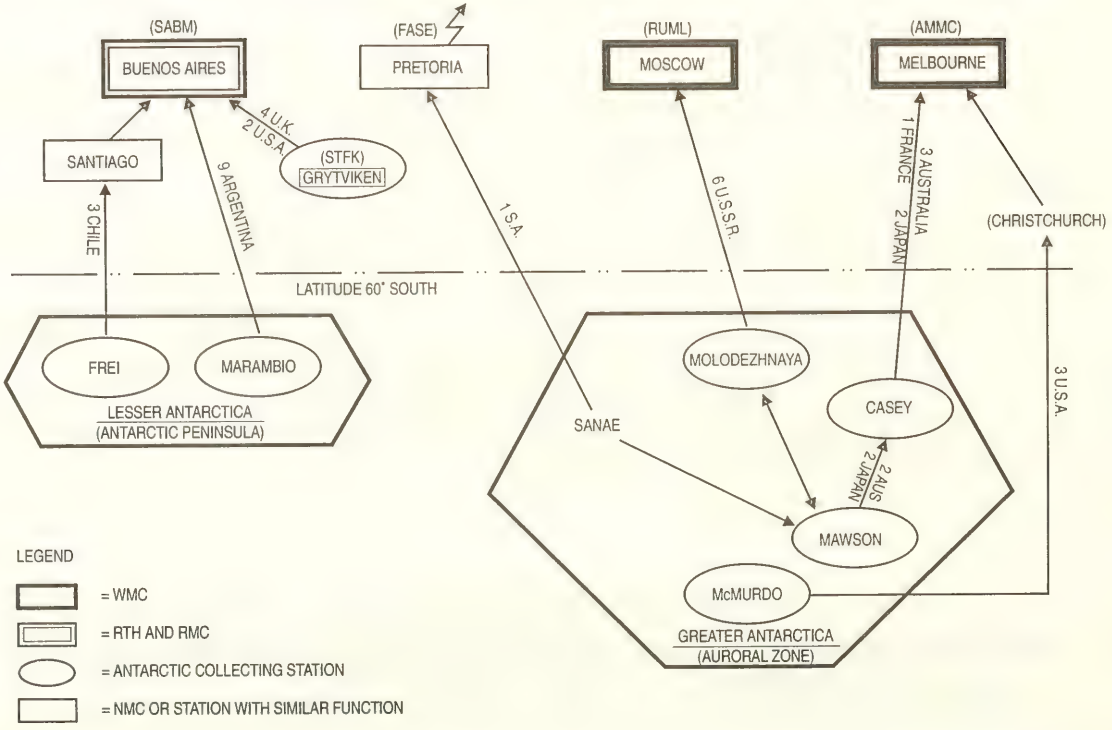
PRINCIPAL INTRA-ANTARCTIC INTERNATIONAL ROUTES BY WHICH ANTARCTIC METEOROLOGICAL DATA LEAVES THE ANTARCTIC AS OF SEPTEMBER 1978 (CORRECTED)



= STATIONS TRANSMITTING DATA COLLECTED FROM MORE THAN ONE STATION DIRECTLY TO THE GTS

Annex 2

PRINCIPAL ROUTES BY WHICH ANTARCTIC DATA ENTERS THE GLOBAL TELECOMMUNICATION SYSTEM AS OF SEPTEMBER 1978 (CORRECTED)



Annex 3

5. In cooperation with the WWW, they seek to ensure that the transmission of these data from the GTS to Antarctic stations is facilitated in cases where this method is likely to be more reliable or cost-effective than trans-Antarctic transmissions;

6. Through their National Antarctic Committees, they invite SCAR to prepare a brief handbook of the telecommunications practices within and between national networks in a format which allows it to be amended periodically in the light of changes in national practices;

7. For the purposes of the previous paragraph, they ensure that their offices administering Antarctic programs inform SCAR in June and December each year of changes in their telecommunications practices;

8. Subject to overriding scientific, administrative or budgetary reasons, they seek to ensure, by means of appropriate contacts with the offices administering Antarctic programs, that transmission of meteorological data between Antarctic stations is not prejudiced by changes in their telecommunications practices;

9. They invite WMO, through their Permanent Representatives to that Organization, to review Annexes 1 and 2 of Recommendation VI-3 with a view to advising Consultative Parties about current, and probable future, requirements for both raw and processed data in the Antarctic region;

10. Not later than at the Twelfth Antarctic Treaty Consultative Meeting they review developments in Antarctic telecommunications for meteorological purposes, having sought in the interim period to resolve any international difficulties that may arise with regard to the system by appropriate discussion.

X-4
Man's Impact on the Antarctic Environment: Collection of Geological Specimens

The Representatives,

Recalling Article II of the Antarctic Treaty;

Recognising that an essential element in geological investigations is the collection and removal of specimens but that the removal of specimens from areas which are of exceptional geological interest needs, as far as is practicable, to be kept to a minimum in order to avoid prejudicing subsequent geological investigations in such areas.

Noting that:

(i) this problem is presented in a more acute form in areas where more than one expedition is undertaking geological investigations;

(ii) a similar problem has already been recognised with regard to the collection of meteorites;

(iii) it might be appropriate to designate small areas which are of exceptional geological interest as Sites of Special Scientific Interest.

Recommend to their Governments that, through their National Committees, they refer the matter to the Scientific Committee on Antarctic Research (SCAR) for further study.

X-5
Man's Impact on the Antarctic Environment: Site of Special Scientific Interest - Interim Guidelines

The Representatives,

Recalling Recommendations VII-3, VIII-3 and VIII-4;

Noting that a management plan has been prepared for a Site of Special Scientific Interest on the western shore of Admiralty Bay, King George Island;

Considering that it would be advantageous to gather experience of the practical effect of the management plan prepared for this Site;

Recommend to their Governments that they voluntarily take account of the management plan, annexed to this recommendation, for Site No. 8 western shore of Admiralty Bay, King George Island.

Annex

Site of Special Scientific Interest No. 8
Western Shore of Admiralty Bay, King George Island

Management Plan

(i) Description of Site

All that area on the western shore of Admiralty Bay, south of Ezcurra Inlet, south of a line connecting Jardine Peak and the shoreline immediately to the north of a prominent group of rocks characterized by a covering of orange lichens bearing approximately 068° from Jardine Peak, and east of a line joining Jardine Peak, The Tower and a point on shore line bearing 180° from The Tower.

(ii) Reason for Designation

This area is one of exceptional scientific interest close to a research station frequently visited by tourist ships. It supports an exceptional assemblage of Antarctic birds and mammals. Long-term research programs could be jeopardised by accidental interference, especially during the breeding season of these animals.

(iii) Outline of Research

The area supports a breeding colony of Elephant seals and the three species of pygoscelid penguins in association with eight species of flighted birds. The purpose of the investigations is to gain insight into the dynamics of a typical, but particularly rich, Antarctic coastal ecosystem. Studies of the functioning of the inshore and coastal zone in relation to the ecosystem will include quantitative studies of the circulation of matter and energy between the coastal and marine environments.

(iv) Date of Expiry of Designation

31 March 1985.

(v) Access Points

The site should be entered only from the vicinity of Point Thomas.

(vi) Pedestrians and Vehicular Routes

Vehicles should not enter the site. Pedestrians should not move through the populated areas, especially during the breeding season, except as necessary in the course of scientific investigations.

(vii) Other Kinds of Scientific Investigations Which Would Not Cause Harmful Interference

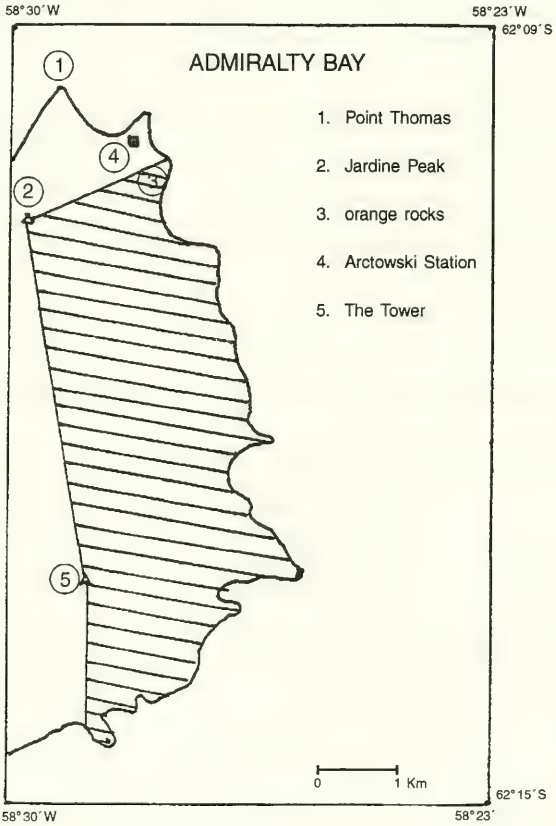
Scientific investigation which will not cause significant disturbance to the biological programmes mentioned in section (iii) above.

(viii) Scientific Sampling

Scientific sampling, other than that associated with the research programme described above, should be kept to a minimum and in accordance with the Agreed Measures for the Conservation of Antarctic Fauna and Flora.

(ix) Other Restraints

Helicopters and low-flying aircraft should avoid the breeding colonies of birds in accordance with the Agreed Measures for the Conservation of Antarctic Fauna and Flora.



X-6
Man's Impact on the Antarctic Environment: Sites of Special Scientific Interest

The Representatives,

Recalling Recommendations VIII-3 and VIII-4;

Noting that:

(i) in accordance with paragraph 2 of Recommendation VIII-3 the Scientific Committee on Antarctic Research (SCAR), at its Fifteenth Meeting at Chamonix in May 1978, had reviewed the seven sites of Special Scientific Interest designated in Recommendation VIII-4;

(ii) experience of the practical effect of the management plans for these sites had shown them to be an effective means of reducing the risk of harmful interference in areas of exceptional scientific interest;

(iii) no change to these management plans had been proposed by SCAR;

Recommend to their Governments that:

1. The date of expiry of designation of the following sites should be extended from 30 June 1981 to 30 June 1985:

   Site No. 1: Cape Royds, Ross Island

   Site No. 2: Arrival Heights, Hut Point Peninsula, Ross Island

   Site No. 3: Barwick Valley, Victoria Land

   Site No. 4: Cape Crozier, Ross Island

   Site No. 5: Fildes Peninsula, King George Island, South Shetland Islands

   Site No. 6: Byers Peninsula, Livingston Island, South Shetland Islands.

2. The date of expiry of designation of Site No. 7: Haswell Island, should be extended from 30 June 1981 to 30 June 1983.

3. They use their best endeavors to ensure, in accordance with paragraphs 3 and 4 of Recommendation VIII-3, that the management plans of these sites are observed.

X-7
Oil Contamination of the Antarctic Marine Environment

The Representatives,

Recalling that paragraph 4 of Recommendation IX-6 called for such reports as might have been prepared on the matters set out in the first three paragraphs of that Recommendation to be considered at the Meeting of Experts recommended in paragraph 3 of Recommendation IX-1;

Noting that three reports were submitted to that meeting (Washington, June 1979) which, between them:

(i) outlined the probable pathways by which oil might reach the Antarctic marine environment;

(ii) concentrated on the question of baseline measurements of the hydrocarbon content of the Antarctic marine environment and on programs for further study of this question;

(iii) devoted less attention to proposals relating to practicable means by which oil contamination of the Antarctic marine environment might be reduced;

(iv) noted the need for further studies relating to the problem of oil contamination of the Antarctic marine environment;

Recognizing that methods for analysing dissolved hydrocarbons have not yet reached the stage where they can be used on a routine basis and that the results of such measurements have given rise to differing interpretations as to their environmental significance, especially regarding very low levels of hydrocarbon content in water samples from the open ocean;

Recognizing that determination of baseline measurements of the hydrocarbon content in representative components of the Antarctic marine ecosystem (including birds and mammals) would probably, in the medium term, provide a more cost-effective insight into levels of oil contamination of the Antarctic marine environment;

Noting that up to now the most significant introduction of oil in the Antarctic marine environment has appeared to be from the operation of ships and that there are international agreements aimed at reducing the levels of oil contamination of the marine environment generally;

Recognizing that the presence of ice in Antarctic waters gives rise to particular hazards for the operation of ships; and

Noting that in many instances it may not be feasible to adapt existing ships to more stringent standards for the prevention of the contamination of the sea by oil than those which existed at the time these ships were built;

Recommend to their Governments that:

1. They take note of Section III of the Report of Ecological, Technological, and other Related Experts on Mineral Exploration and Exploitation in Antarctica (Washington, 1979), annexed to the Final Report of the Tenth Consultative Meeting;

I

Baseline Levels of Hydrocarbon Content

2. While coordinating programs through their National Committees and the Scientific Committee on Antarctic Research (SCAR), they encourage studies of:

   (a) baseline measurements of hydrocarbon content in representative components of the Antarctic marine ecosystem (including birds and mammals);

   (b) the effects of various kinds and concentrations of hydrocarbons (and other pollutants) on key components of the Antarctic marine ecosystem;

   (c) the methodology of analysing low levels of dissolved hydrocarbon content of the marine environment and the development of this methodology for purposes of routine measurements;

3. Through their National Committees, they invite SCAR in consultation with other appropriate international organizations, to keep under review the possibility of developing a program for the determination of baseline measurements of hydrocarbon content relevant to the needs for such determinations in the Antarctic marine environment.

II

Reduction of the Risk of Contamination

4. They review their respective obligations under existing international agreements to which they are parties which relate to the reduction of contamination of the sea by oil and, in the light of the particularly hazardous

nature of the Antarctic for ship operations, consider whether their compliance with these obligations adequately minimizes the risk of oil contamination of the Antarctic marine environment;

5. They be prepared to discuss this matter further at the Eleventh Consultative Meeting.

X-8
Effects of Tourists and Non-Government Expeditions in the Antarctic Treaty Area

The Representatives,

Recalling that Annex A to Recommendation VIII-9 was to be discussed at the Ninth Consultative Meeting and that a draft text of a Statement of Accepted Practices and the Relevant Provisions of the Antarctic Treaty was referred from the Ninth to the Tenth Consultative Meeting;

Recognizing that, in addition to the statement referred to in the previous paragraph which is primarily intended for the organizers of tourist expeditions, it would be helpful to the organizers of such expeditions to be able to provide to individual visitors a brief guide to good conduct in the Antarctic;

Noting that adventurous individuals organizing non-governmental expeditions to Antarctica may seek help or advice from offices administering Antarctic programs;

Recognizing, also, that in considering responses to requests for help from such expeditions, an important concern is the possibility that such expeditions may, in cases of emergency, involve the offices administering Antarctic programs in financial or material loss;

Recognizing that suitably qualified guides accompanying commercially organized Antarctic tours would both benefit the tourists and help to ensure that the conservation and environmental measures adopted by the Consultative Parties were observed;

Reaffirming the traditional principle in the Antarctic of rendering all assistance feasible in the event of an emergency request for help, but noting that commercial overflights of Antarctica are operating in a particularly hazardous environment, where aircraft operation systems normally available elsewhere in the world are at a minimum, and where emergencies could arise which are beyond the capacity of permanent Antarctic expeditions to respond adequately;

Recommend to their governments that:

I

STATEMENT OF ACCEPTED PRACTICES AND THE
RELEVANT PROVISIONS OF THE ANTARCTIC TREATY

They insert the attached statement of Accepted Practices and the Relevant Provisions of the Antarctic Treaty into Annex A to Recommendation VIII-9 for the purposes set out in operative paragraph 1 of that Recommendation.

II

NON-GOVERNMENTAL EXPEDITIONS

If a non-governmental expedition approaches a Consultative Party for help or advice, that Consultative Party should inform the Contracting Party where the expedition to Antarctica is being organized and may request all relevant information about the expedition.

They urge non-governmental expeditions to carry adequate insurance cover against the risk of their incurring financial charges or material losses in the Antarctic Treaty Area.

III

TOUR GUIDES

To the extent practicable, they encourage commercial tour operators to carry tour guides with experience of Antarctic conditions, who are aware of the considerations which underlie the Agreed Measures for the Conservation of Antarctic Fauna and Flora and for the protection of the Antarctic environment.

IV

COMMERCIAL OVERFLIGHTS IN ANTARCTICA

They notify commercial aircraft operators that the present level of tourist overflight activity:

(i) exceeds existing capabilities for air traffic control, communications and search and rescue in the Antarctic;

(ii) may interfere with normal operational flights in support of expeditions engaged in ongoing scientific programs in the Antarctic;

(iii) exceeds the capacity of their Antarctic operations to respond adequately to an unplanned emergency landing.

STATEMENT OF ACCEPTED PRINCIPLES AND THE RELEVANT PROVISIONS OF THE ANTARCTIC TREATY

Introduction

The following statement is intended for the guidance of all those who visit the Antarctic.

The Antarctic Treaty was negotiated in Washington in 1959 by the states which had established scientific stations in the Antarctic during the International Geophysical Year (1957-58) in order to perpetuate the close scientific cooperation which had marked that period. It provides, inter alia, that the Antarctic shall be used for peaceful purposes only and that any measures of a military nature shall be prohibited; that there shall be freedom of scientific investigation and that the results of such investigation shall be made freely available; that any nuclear explosions and the disposal of radioactive waste material in the Antarctic is prohibited; that notification of an expedition to the Antarctic shall be provided in advance; and that each of the Antarctic Treaty Contracting Parties shall exert appropriate efforts to the end that no one engages in any activity in the Antarctic contrary to the principles or purposes of the Antarctic Treaty.

Recommendations of Antarctic Treaty Consultative Meetings

The Treaty requires that meetings shall be held from time to time to consider and recommend measures in furtherance of its principles and objectives. Amongst these are measures of which all those who enter the Antarctic Treaty Area, both those sponsored by Governments and those not so sponsored, should be aware. The following notes indicate the nature of these measures and the reader is referred to the Recommendations of successive Consultative Meetings for the details.

Protection of the Antarctic Environment

The ecosystem of the Antarctic Treaty Area is particularly vulnerable to human interference and the Antarctic derives much of its importance from its uncontaminated and undisturbed condition and the effects it has on adjacent areas and the global environment. For these reasons the Consultative Parties recognise their special responsibility for the protection of the environment and the wise use of the Treaty Area.

Conservation of Wildlife

Animals in the Antarctic are in almost all cases tame and are therefore peculiarly vulnerable. Both animals and plants are living under extreme conditions and great care has to be taken to avoid upsetting the natural ecological system. They are protected by the following five mechanisms under the Agreed Measures for the Conservation of Antarctic Fauna and Flora:

(i) Protection of Native Fauna

The killing, wounding, capturing or molesting of any native mammal or native bird is prohibited except in an emergency or in accordance with a permit issued under the authority of a Participating Government. Any attempt to do any of these things is also prohibited under the same conditions.

(ii) Harmful Interference

Every effort shall be made to minimize harmful interference with the normal living conditions of any native mammal or bird.

(iii) Specially Protected Species

Two species of seal, Fur Seals and the Ross Seal have been designated as Specially Protected Species and permits may only be issued in relation to these species in accordance with certain restrictive criteria.

(iv) Specially Protected Areas

Certain areas of outstanding scientific interest have been designated as Specially Protected Areas in order to preserve their unique natural ecological system (see Annex I). No person may enter such an Area except in accordance with a permit issued under the authority of a Participating Government. Such permits may only be issued in accordance with certain restrictive criteria.

(v) Introduction of Non-Indigenous Species, Parasites and Diseases

No species of animal or plant not indigenous to the Antarctic Treaty Area may be brought into the Area except in accordance with a permit issued under the authority of a Participating Government. Special precautions have to be taken to prevent the accidental introduction of parasites and diseases into the Treaty Area.

Pelagic Sealing

The Consultative Parties, having regard to the possibly damaging ecological consequences that might arise from the exploitation of Antarctic seals for commercial purposes, negotiated the Convention for the Conservation of Antarctic Seals. This Convention entered into force on 11 March 1978.

Waste Disposal

In addition to the measures for the conservation of Antarctic Fauna and Flora outlined above, the Consultative Parties have prepared a Code of Conduct for Antarctic Expeditions and Station Activities including, inter alia, recommended procedures for waste disposal (see Annex II).

Protection of Historic Monuments

Every effort should be made to prevent damage or destruction to any historic monuments. The Consultative Parties have listed a number of such monuments for special protection (see Annex III).

Facilitation of Scientific Research:
Sites of Special Scientific Interest

There are many scientific investigations being carried out in the Antarctic which could suffer from accidental interference. For example, long term studies of the population dynamics of a penguin colony may require that visitors

be kept to an absolute minimum. Intensive scientific work in one area may require that a nearby ecologically similar area be kept undisturbed and uncontaminated for reference purposes. Again, certain electromagnetically "quiet" areas, where sensitive instruments have been installed for recording minute signals associated with upper atmosphere studies, may require that visits to the site should be kept to a minimum.

For these and similar reasons the Consultative Parties have designated certain Sites of Special Scientific Interest in the Antarctic (see Annex IV). Each Site is subject to a management plan designed to protect the particular scientific investigations being undertaken. Persons wishing to visit Sites of Special Scientific Interest should, well in advance, consult the national office responsible for the administration of a permanent Antarctic scientific expedition or, if this is not possible, should consult the station commander of the scientific station nearest the site which it is intended to visit.

Tourism and Non-Governmental Expeditions to the Antarctic Treaty Area

An important feature of the Antarctic Treaty is that cooperation under it is facilitated by the prior exchange of information about planned activities. The Treaty commitment covers any expedition organised in or proceeding to the Antarctic from any state which is a Contracting Party to the Antarctic Treaty. A consolidated list of the information to be exchanged is attached at Annex V.

It is a traditional principle that expeditions render all assistance feasible in the event of an emergency. There is in the Antarctic a number of unoccupied huts and refuges which may be used by any expedition in an emergency, in which case the authorities who maintain the hut or refuge should be informed of what use has been made of it.

Special Measures Relating to Tourist and Non-Governmental Expeditions

The number of non-governmental expeditions to the Antarctic is steadily increasing and there is a tendency for these expeditions to concentrate on the more easily accessible parts of the Antarctic. Frequent visits to scientific stations or undue dependence on the facilities of such stations can prejudice their scientific work. It is therefore required that the organizers of a tourist or non-governmental expedition should furnish notice as soon as possible, through diplomatic channels, to any other Government whose station the expedition plans to visit. Any such Government may refuse to accept a visit to a station which it maintains or may lay down conditions upon which it would grant permission including inter alia, that:

(i) reasonable assurance be given of compliance with the provisions of the Antarctic Treaty, measures adopted under it and the conditions applicable at stations to be visited;

(ii) tour organizers should ensure that prior to the commencement of the tour or expedition, procedures and systems for adequate telecommunications have been confirmed with the offices administering the Antarctic stations to be visited;

(iii) final arrangements to visit any station be made with that station between twenty-four and seventy-two hours in advance of the expected time of arrival;

(iv) all tourists and other visitors comply with any conditions or restrictions on their movements which the station commander may stipulate for their safety or to safeguard scientific programmes being undertaken at or near the station;

(v) visitors must not enter Specially Protected Areas and must respect designated historic monuments;

(vi) tour organizers should report to the Governments whose stations they have visited, after completion of the tour, the name and nationality of the ship, the name of the captain, the itinerary of each separate cruise, the number of tourists accompanying each cruise and the places and dates at which landings were made in the Antarctic Treaty Area, with the number of persons landed on each occasion.

LIST OF ANNEXES

ANNEX I Specially Protected Areas.
(Annex B to Recommendation III-8.)

ANNEX II Extract From the Code of Conduct for Antarctic Expeditions and Station Activities Relating to Waste Disposal.
(Annex to Recommendation VIII-11.)

ANNEX III List of Historic Monuments.
(Annex to Recommendation VII-9.)

ANNEX IV Sites of Special Scientific Interest.
(Management Plans annexed to Recommendation VIII-4.)

ANNEX V Standard Format for the Annual Exchanges of Information.
(Annex to Recommendation VIII-6.)

GUIDANCE FOR VISITORS TO THE ANTARCTIC

Antarctica and its surrounding islands are one of the few places in the world which are still relatively unchanged by man's activities. Scientists still know very little about the ecological situation in the Antarctic. At the present early stage in research on these matters, some restrictions and precautions may seem unnecessarily harsh, but preliminary studies indicate the need for great caution.

By following a few very simple requests, you can help preserve the unique environment of this region.

1. Avoid disturbing wildlife, in particular do not:
   - walk on vegetation;
   - touch or handle birds or seals;
   - startle or chase any bird from its nest;
   - wander indiscriminately through penguin or other bird colonies.

2. Litter of all types must be kept to a minimum. Retain all litter (film wrappers, tissue, food scraps, tins, lotion bottles, etc.) in a bag or pocket to be disposed of on board your ship. Avoid throwing tin cans and other trash off the ship near land.

3. Do not use sporting guns.

4. Do not introduce plants or animals into the Antarctic.

5. Do not collect eggs or fossils.

6. Do not enter any of the Specially Protected Areas and avoid Sites of Special Scientific Interest.

7. In the vicinity of scientific stations avoid interference with scientific work and do not enter unoccupied buildings or refuges except in an emergency.

8. Do not paint names or graffiti on rocks or buildings.

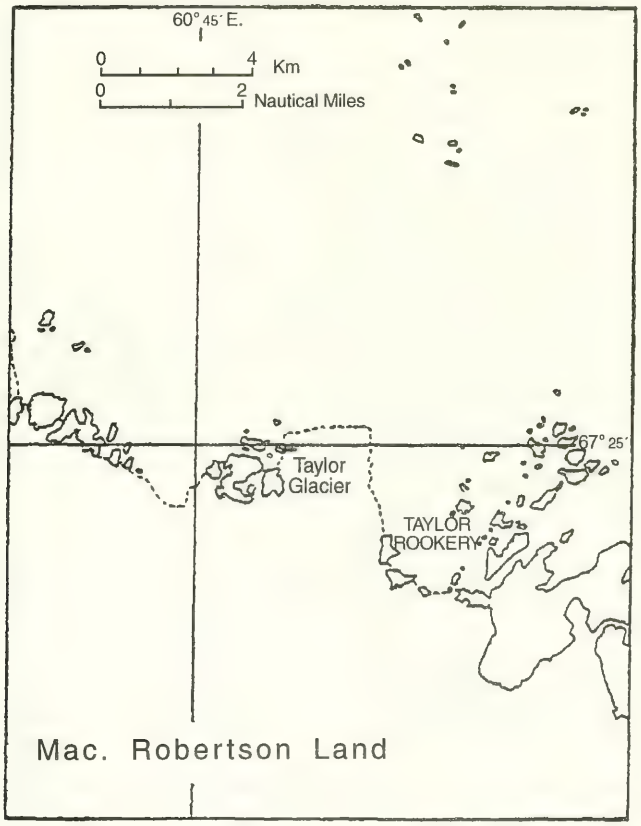
9. Take care of Antarctic historic monuments.

10. When ashore, keep together with your party.

Annex I
Specially Protected Areas

SPECIALLY PROTECTED AREA No 1
Taylor Rookery, Mac Robertson Land
Lat 67° 26′ S, long 60° 50′ E

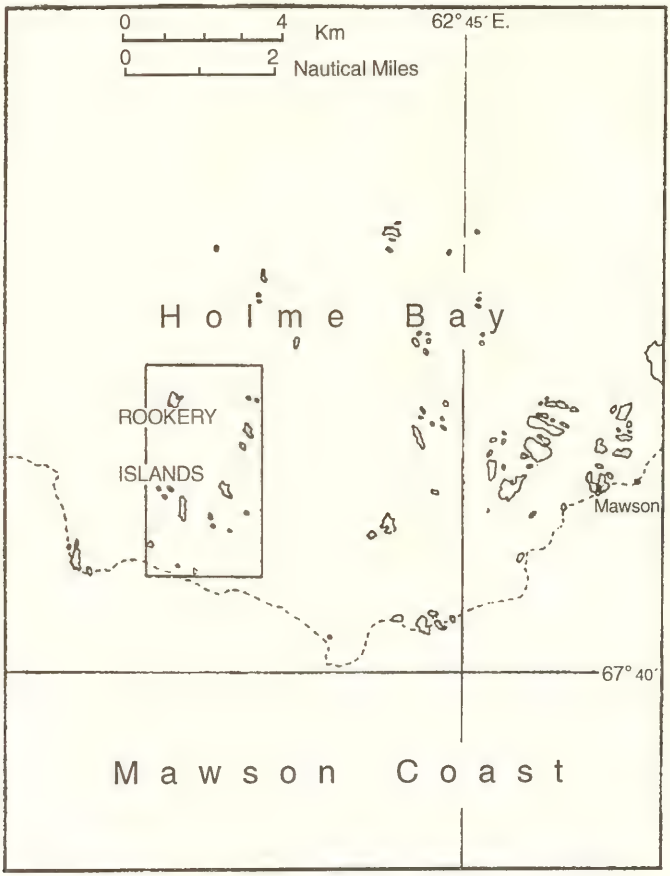
DESCRIPTION: The area consists of the whole of the northernmost rock exposure on the eastern side of Taylor Glacier. The area is shown on the attached map.



Created by Recommendation IV-1 on the grounds that Taylor Rookery contains a colony of Emperor Penguins (*Aptenodytes forsteri*) which is one of the few, and probably the largest, of the known colonies of this species located wholly on land.

SPECIALLY PROTECTED AREA No 2
Rookery Islands, Holme Bay
Lat 67° 37′ S, long 62° 33′ E.

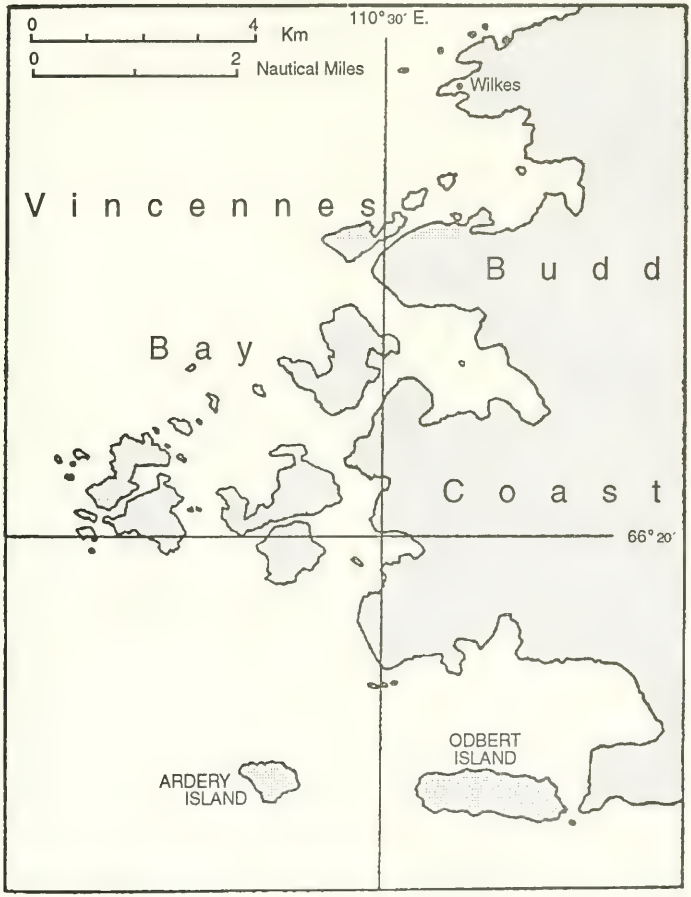
DESCRIPTION: The area, 7 nautical miles west of Mawson, comprises the islands and rocks lying within the rectangle marked on the attached map.



Created by Recommendation IV-2 on the grounds that Rookery Islands contain breeding colonies of six bird species resident in the Mawson Area, two of which, the Giant Petrel (*Macronectes giganteu*) and the Cape Pigeon (*Daption capensis*), occur nowhere else in the region and that it is of scientific importance to safeguard this unusual association of six species and to preserve a sample of their habitat.

SPECIALLY PROTECTED AREA No 3
Ardery Island and Odbert Island, Budd Coast
Lat 66° 22′ S, long 110° 28′ E and lat 66° 22′ S, long 110° 33′ E

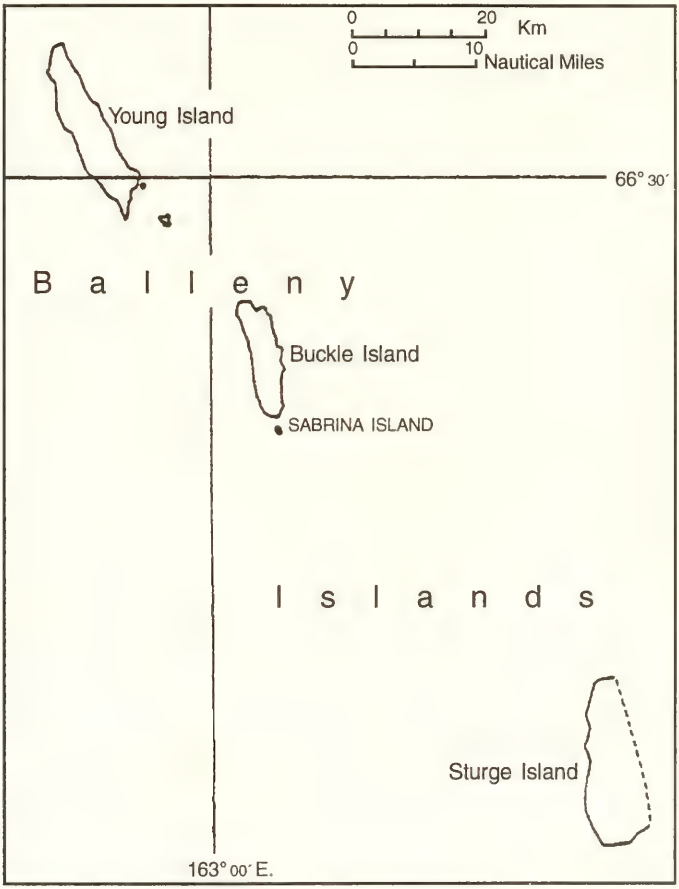
DESCRIPTION: The area consists of Ardery Island and Odbert Island which lie off-shore in Vincennes Bay, 7 nautical miles south of Wilkes. The off-lying rocks are not included in the area. The area is shown on the attached map.



Created by Recommendation IV-3 on the grounds that Ardery Island and Odbert Island off the Budd Coast support several breeding species of petrel and provide a sample of their habitat and that two of these species, Antarctic Petrel (*Thalassoica antarctica*) and Antarctic Fulmer (*Fulmarus glacialoides*), are of particular scientific interest.

SPECIALLY PROTECTED AREA No 4
Sabrina Island, Balleny Islands
Lat 66° 54′ S, long 163° 20′ E

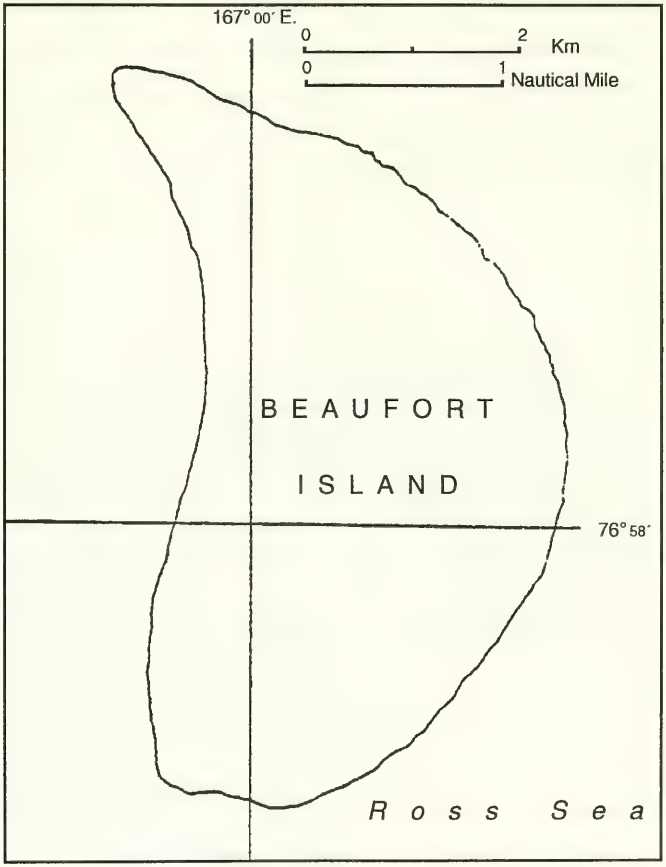
DESCRIPTION: A small island some 2 kilometres south of Buckle Island in the Balleny Islands. The area is shown on the attached map.



Created by Recommendation IV-4 on the grounds that the Balleny Islands, as the most northerly Antarctic land in the Ross Sea region, support fauna and flora which reflect many circumpolar distributions at this latitude and that Sabrina Island in particular provides a representative sample of such fauna and flora.

SPECIALLY PROTECTED AREA No 5
Beaufort Island, Ross Sea
Lat 76° 58′ S, long 167° 03′ E

DESCRIPTION: Beaufort Island measures 6 kilometres by 3 kilometres and is located 20 nautical miles north of Ross Island. The area is shown on the attached map.

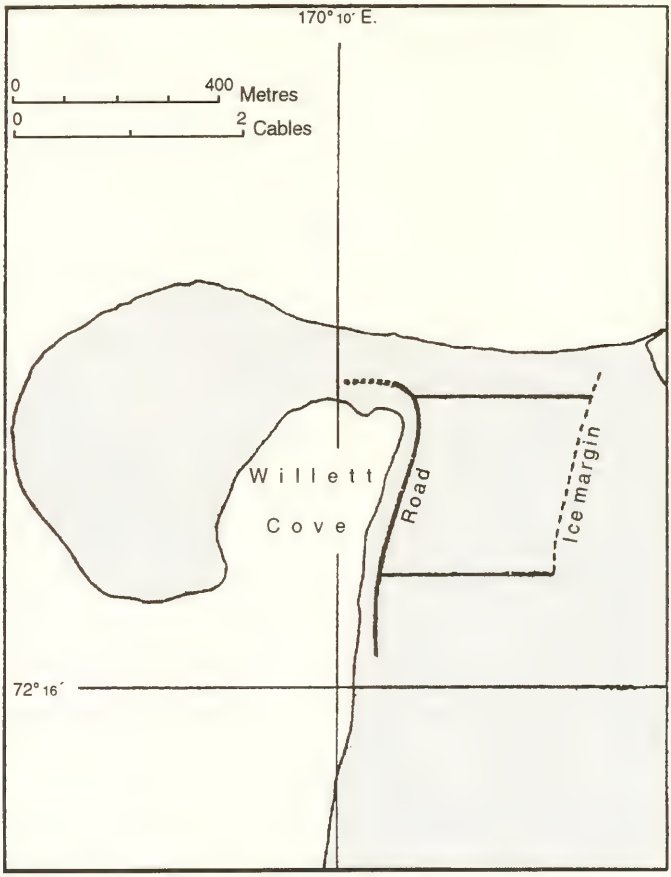


Created by Recommendation IV-5 on the grounds that Beaufort Island contains substantial and varied avifauna, that it is one of the most important breeding grounds in the region, and that it should be protected to preserve the natural ecological system as a reference area.

NOTE: Specially Protected Area No 6 was created by Recommendation IV-6 and terminated by VIII-12. Cape Crozier is now Site of Special Scientific Interest No 4 by virtue of VIII-4.

SPECIALLY PROTECTED AREA No 7
Cape Hallett, Victoria Land
Lat 72° 18′ S, long 170° 19′ E

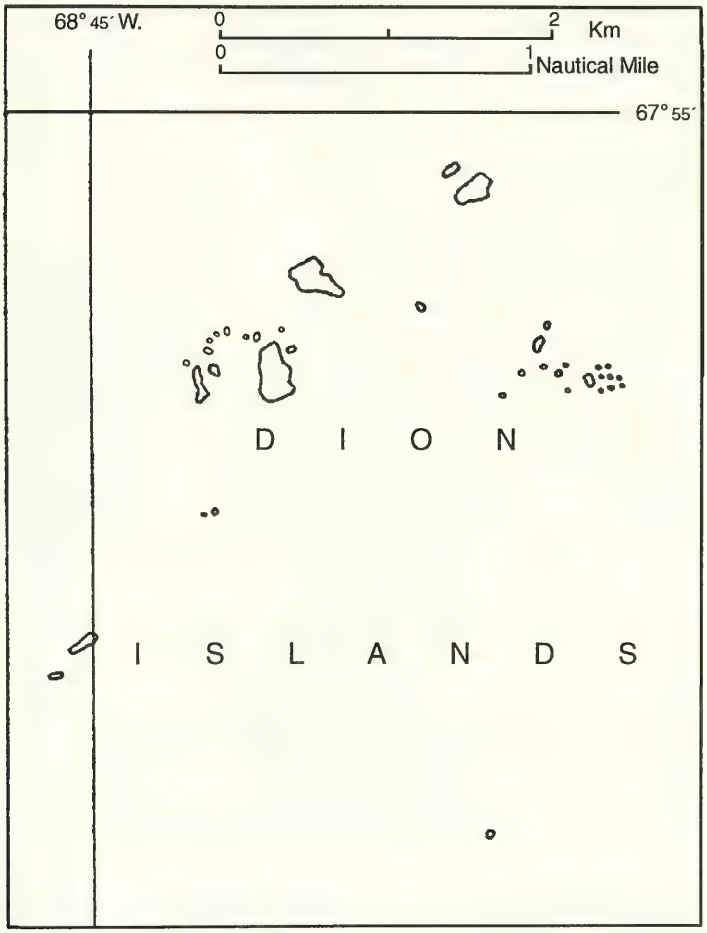
DESCRIPTION: The area between the eastern side of the road, which runs along the eastern side of Willett Cove, and the western margin of the permanent ice sheet, to the south of a line from the road to the margin of the permanent ice sheet at the latitude of the head of Willett Cove, and to the north of a line from the road to the margin of the permanent ice sheet drawn 350 metres to the south of that latitude and parallel to it. The area is shown on the attached map.



Created by Recommendation IV-7 on the grounds that Cape Hallett includes a small patch of particularly rich and diverse vegetation which supports a variety of terrestrial fauna and that the ecosystem, which includes a rich avifauna, is of outstanding scientific interest.

SPECIALLY PROTECTED AREA No 8
Dion Islands, Marguerite Bay, Antarctic Peninsula
Lat 67° 52′ S, long 68° 43′ W

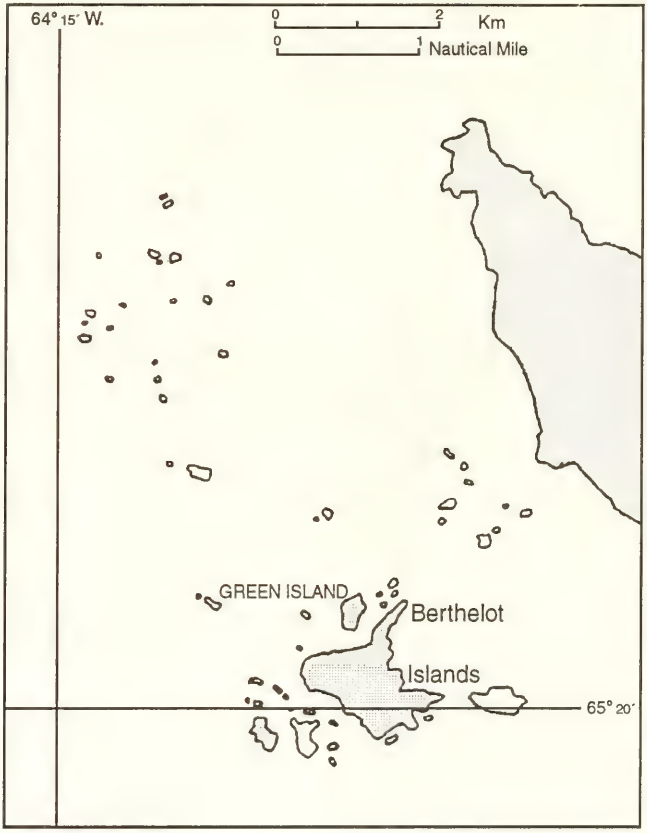
DESCRIPTION: A group of small, rocky, low-lying islands in Marguerite Bay, about 15 kilometres south of Adelaide Island. The area is shown on the attached map.



Created by Recommendation IV-8 on the grounds that amongst the Dion Islands is found the only colony of Emperor Penguins (*Aptenodytes forsteri*) known to exist on the west side of the Antarctic Peninsula and that the isolation of this colony from others of the same species makes it of outstanding scientific interest.

SPECIALLY PROTECTED AREA No 9
Green Island, Berthelot Islands, Antarctic Peninsula
Lat 65° 19′ S, long 64° 10′ W

DESCRIPTION: A small island, measuring about 600 metres by 400 metres, situated 150 metres to the north of the largest of the Berthelot Islands. The area is shown on the attached map.

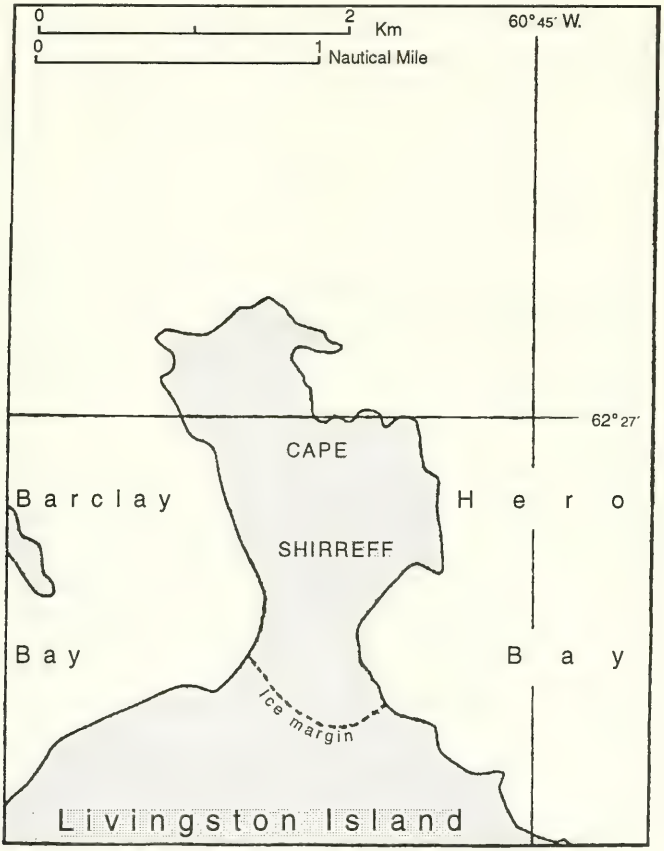


Created by Recommendation IV-9 on the grounds that the vegetation on Green Island is exceptionally rich, that it is probably the most luxuriant anywhere on the west side of the Antarctic Peninsula, that in some places the humus is 2 metres thick and that this area, being of outstanding scientific interest, should be protected because it is probably one of the most diverse Antarctic ecosystems.

NOTE: Specially Protected Area No 10 was created by Recommendation IV-10 and terminated by VIII-12/2.2. Byers Peninsula is now Site of Special Scientific Interest No 6 by virtue of VIII-4/3.1.

SPECIALLY PROTECTED AREA No 11
Cape Shirreff, Livingston Island, South Shetland Islands
Lat 62° 28′ S, long 60° 48′ W

DESCRIPTION: The ice-free peninsula lying to the north of the northern margin of the permanent ice sheet on Livingston Island, between Barclay Bay and Hero Bay. The area is shown on the attached map.

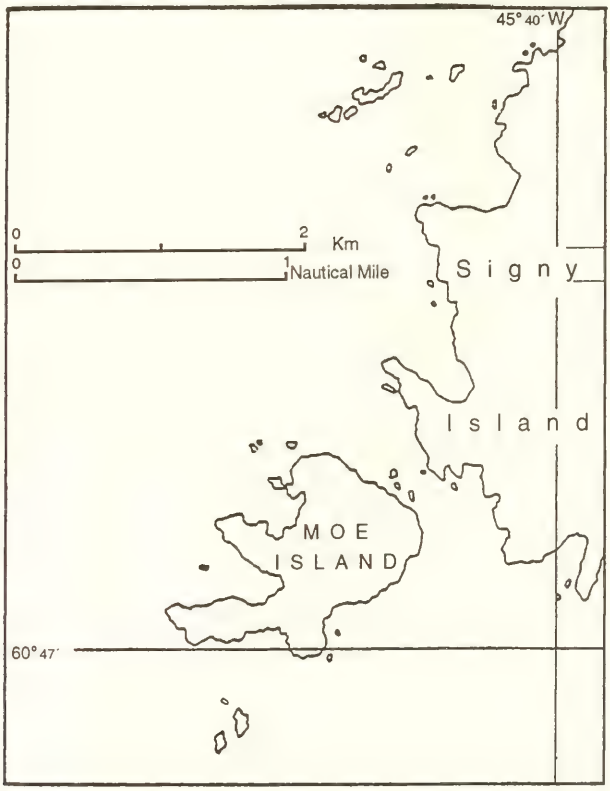


Created by Recommendation IV-11 on the grounds that Cape Shirreff supports a considerable diversity of plant and animal life, including many invertebrates, that a substantial population of Elephant Seals (*Mirounga leonina*) and small colonies of Fur Seals (*Arctocephalus* sp) are found on the beaches and that the area is of outstanding scientific interest.

NOTE: Specially Protected Area No 12 was created by Recommendation IV-12, modified by Recommendation V-5 and terminated by VIII-2/2.2. Fildes Peninsula is now Site of Special Scientific Interest No 5 by virtue of VIII-4/3.1.

SPECIALLY PROTECTED AREA No 13
Moe Island, South Orkney Islands
Lat 60° 45′ S, long 45° 41′ W

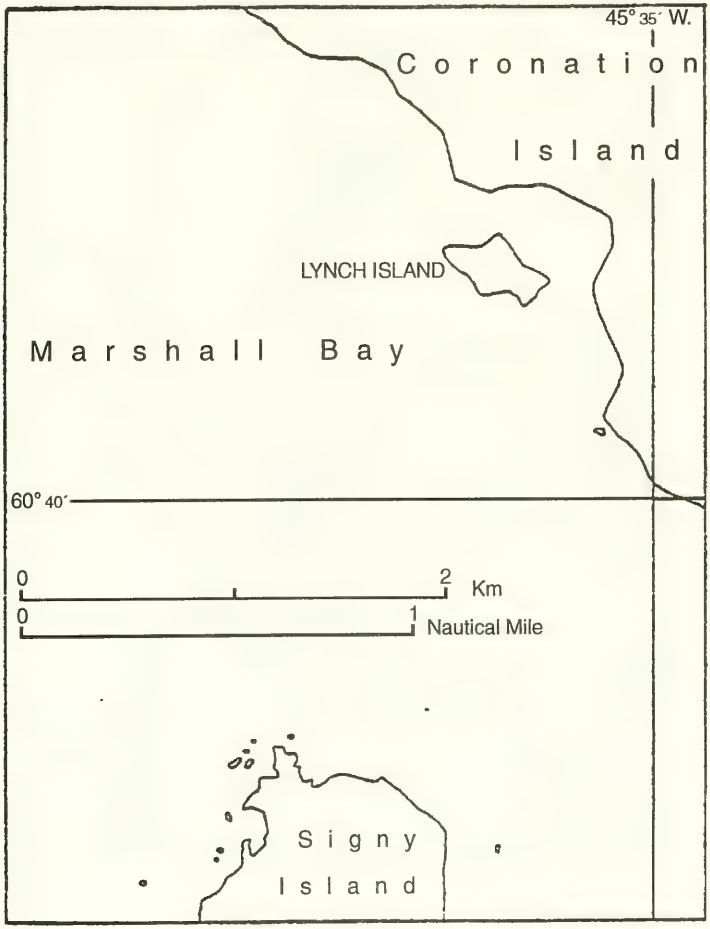
DESCRIPTION: A small island, about 1 kilometre long and 1 kilometre across, lying about 500 metres south-west of Signy Island, South Orkney Islands. The off-lying rocks are not included in the area. The area is shown on the attached map.



Created by Recommendation IV-13 on the grounds that Moe Island provides a representative sample of the maritime Antarctic ecosystem, that intensive experimental research on the neighbouring Signy Island may alter its ecosystem and that Moe Island should be specially protected as a control area for future comparison.

SPECIALLY PROTECTED AREA No 14
Lynch Island, South Orkney Islands
Lat 60° 40′ S, long 45° 38′ W

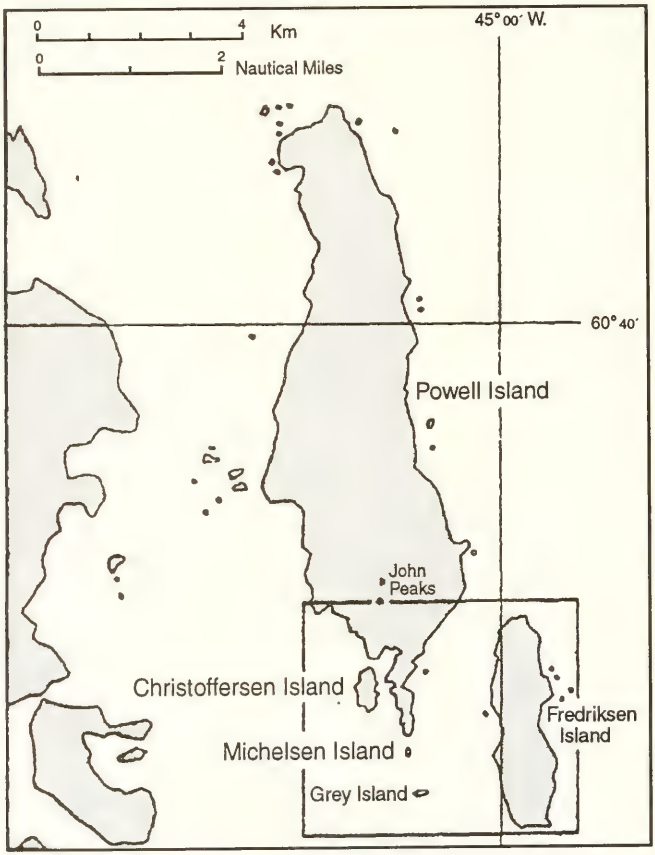
DESCRIPTION: A small island, measuring about 500 metres by 300 metres, in Marshall Bay, off the south coast of Coronation Island, South Orkney Islands. The area is shown on the attached map.



Created by Recommendation IV-14 on the grounds that Lynch Island supports one of the most extensive and dense areas of grass (*Deschampsia antarctica*) known in the Treaty Area and that it provides an outstanding example of a rare natural ecological system.

SPECIALLY PROTECTED AREA No 15
Southern Powell Island and adjacent islands, South Orkney Islands
Lat 60° 45′ S, long 45° 02′ W

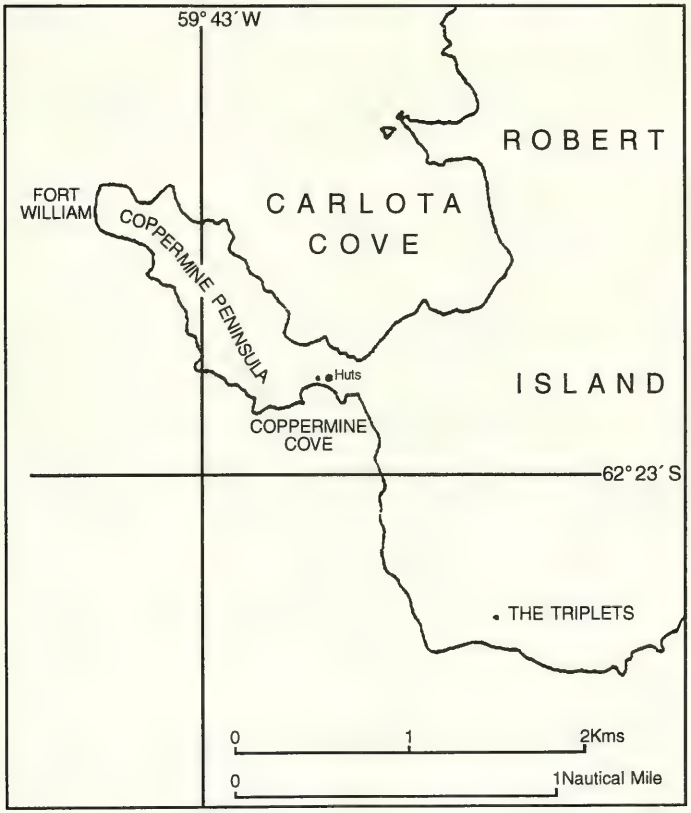
DESCRIPTION: This area in the central South Orkney Islands includes that part of Powell Island which is south of the latitude of the southern summit of John Peaks, together with the whole of Fredriksen Island, Michelsen Island, Christoffersen Island, Grey Island and the unnamed islands lying within the rectangle marked on the attached map.



Created by Recommendation IV-15 on the grounds that southern Powell Island and the adjacent islands support substantial vegetation and a considerable bird and mammal fauna, which is representative of the natural ecology of the South Orkney Islands, and which is rendered more important by the presence of the nucleus of an expanding colony of Fur Seals (*Arctocephalus tropicalis gazella*).

SPECIALLY PROTECTED AREA No 16
COPPERMINE PENINSULA, ROBERT ISLAND
Lat. 62° 23′ S., Long. 59° 42′ W.

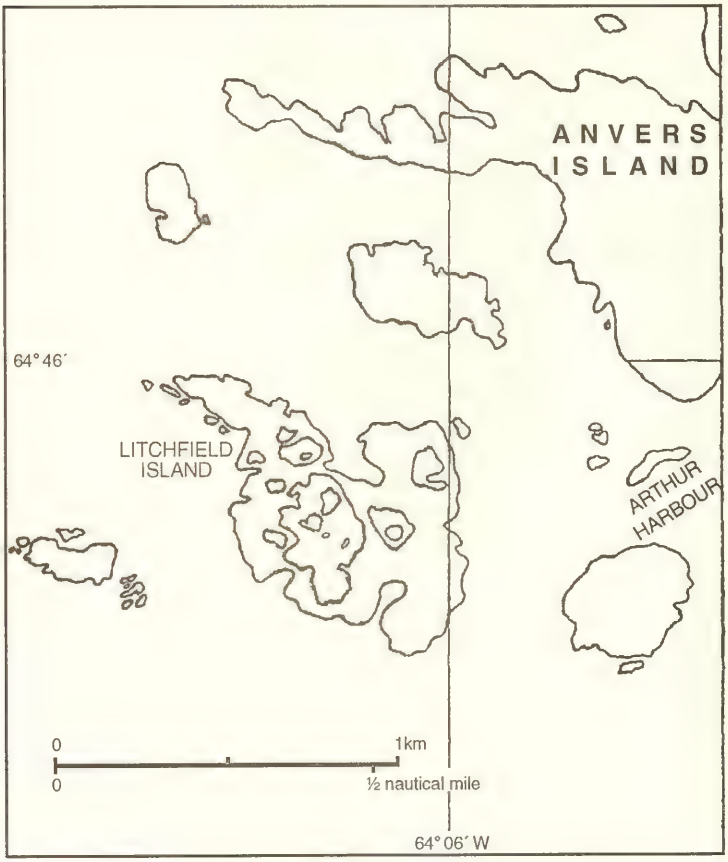
Description: The area comprises all the land west of a line drawn from north to south across the Peninsula. 100 metres west of the two shelters found on the isthmus. The area is shown on the attached map.



Created by Recommendation VI-10 on the grounds that Coppermine Peninsula is a biologically diverse area, supporting rich vegetation, together with a variety of terrestrial fauna, and that the ecosystem, which includes a rich avifauna, is of outstanding scientific interest.

SPECIALLY PROTECTED AREA No 17
Litchfield Island, Arthur Harbor, Palmer Archipelago
Lat 66° 16′ S, Long. 64° 06′ W.

Description: A small island, about 2.5 km^2 in area. The Area is shown on the attached map.



Created by Recommendation VIII-1 on the grounds that Litchfield Island, together with its littoral, possesses an unusually rich collection of marine and terrestrial life, is unique amongst the neighbouring islands as a breeding place for six species of native birds and provides an outstanding example of the natural ecological system of the Antarctic Peninsula area.

Annex II
Code of Conduct for Antarctic Expeditions and Station Activities

Waste disposal

The following are recommended procedures:

(a) Solid Waste

(i) Non-combustible, including chemicals (except batteries); These materials may be disposed of at sea either in deep water or, if this is not possible, at specified sites in shallow water.
(ii) Batteries should be removed from the Antarctic Treaty Area.
(iii) Combustibles
- Wood, wood products and paper should be incinerated, the ash being disposed of at sea.
- Lubricating oils may be burnt except those containing harmful additives which should be removed from the Antarctic Treaty Area.
- Carcasses and materials associated with imported experimental animals should be incinerated.
- All plastics and rubber products should be removed from the Antarctic Treaty Area.

(b) Liquid Waste

(i) Human waste, garbage and laundry effluents should, where possible, be macerated and be flushed into the sea.
(ii) Large quantities of photographic liquids should be treated for the recovery of silver and the residue should be flushed into the sea.

(c) The above procedures ere recommended for coastal stations. Field sites supported from coastal stations should, where feasible, use the facilities of their supporting station. Inland stations should concentrate all waste in deep pits. Except as stated for inland stations, waste should not be buried.

(d) Waste containing radio-isotopes should be removed from the Antarctic Treaty Area.

(e) Every effort should be made to reduce the plastic packaging of products imported into the Antarctic Treaty Area.

(f) If possible the use of leaded fuels or fuels containing ethylene bromide and ethylene chloride should be avoided.

(g) When incinerators are used it is desirable to monitor the effluents.

Annex III
List of Historic Monuments Identified and Described By the Proposing Government or Governments*

1. Flag mast erected in December 1965 at the South Geographical Pole by the First Argentine Overland Polar Expedition.

2. Rock cairn and plaques at Syowa Station (Lat. 69° 00′ S., Long. 39° 35′ E.) in memory of Shin Fukushima, a member of the 4th Japanese Antarctic Research Expedition, who died in October 1960 while performing official duties. The cairn was erected on 11 January, 1961, by his colleagues. Some of his ashes repose in the cairn.

3. Rock cairn and plaque on Proclamation Island, Enderby Land, erected in January 1930 by Sir Douglas Mawson. (Lat. 65° 51′ S., Long. 53° 41′ E.) The cairn and plaque commemorate the landing on Proclamation Island of Sir Douglas Mawson with a party from the British, Australian and New Zealand Antarctic Research Expedition of 1929-31.

4. Station building to which a bust of V.I. Lenin is fixed, together with a plaque in memory of the conquest of the Pole of Inaccessibility by Soviet Antarctic explorers in 1958. (Lat. 83° 06′ S., Long. 54° 58′ E.)

* The Consultative Meeting does not approve or disapprove the place names appearing in the texts of this List in the different languages.

5. Rock cairn and plaque at Cape Bruce, Mac. Robertson Land, erected in February 1931 by Sir Douglas Mawson. (Lat. 67° 25′ S., Long. 60° 47′ E.) The cairn and plaque commemorate the landing on Cape Bruce of Sir Douglas Mawson with a party from the British, Australian and New Zealand Antarctic Research Expedition of 1929-31.

6. Rock cairn at Walkabout Rocks, Vestfold Hills, Princess Elizabeth Land, erected in 1939 by Sir Hubert Wilkins. (Lat. 68° 22′ S., Long. 78° 33′ E.) The cairn houses a canister containing a record of his visit.

7. Stone with inscribed plaque, erected at Mirny Observatory, Mabus Point, in memory of driver-mechanic Ivan Khmara who perished on fast ice in the performance of official duties in 1956. (Lat. 66° 33′ S., Long. 93° 01′ E.)

8. Metal monument-sledge at Mirny Observatory, Mabus Point, with plaque in memory of driver-mechanic Anatoly Shcheglov who perished in the performance of official duties. (Lat. 66° 33′ S., Long. 93° 01′ E.)

9. Cemetery on Buromskiy Island, near Mirny Observatory, in which are buried Soviet, Czechoslovakian and GDR citizens, members of Soviet Antarctic Expeditions, who perished in the performance of official duties on 3 August, 1960. (Lat. 66° 32′ S., Long. 93° 01′ E.)

10. Building (magnetic observatory) at Dobrowolsky Station, Bunger Hills, with plaque in memory of the opening of Oasis Station in 1956. (Lat. 66° 16′ S. Long. 100° 45′ E.)

11. Heavy tractor at Vostok Station with plaque in memory of the opening of the Station in 1957. (Lat. 78° 28′ S., Long. 106° 48′ E.)

12. Cross and plaque at Cape Denison, George V Land, erected in 1913 by Sir Douglas Mawson on a hill situated 300 metres west by south from the main hut of the Australasian Antarctic Expedition of 1911-14. (Lat. 67° 00′ S., Long. 142° 42′ E.) The cross and plaque commemorate Lieutenant B.E. S. Ninnis and Dr. X. Mertz, members of the expedition, who died in 1913 while engaged in the work of the expedition.

13. Hut at Cape Denison, George V Land, built in January 1912 by Sir Douglas Mawson for the Australasian Antarctic Expedition of 1911-14. (Lat. 67° 00′ S., Long 142° 42′ E.) This was the main base of the expedition.

14. Remains of rock shelter at Inexpressible Island, Terra Nova Bay, constructed in March 1912 by Victor Campbell's Northern Party, British Antarctic Expedition, 1910-13. (Lat. 74° 54′ S., Long. 163° 43′ E.) The party spent the winter of 1912 in this shelter and a nearby ice cave.

15. Hut at Cape Royds, Ross Island, built in February 1908 by Ernest Shackleton. (Lat. 77° 38′ S., Long. 166° 07′ E.) Restored in January 1961 by Antarctic Division of New Zealand Department of Scientific and Industrial Research.

16. Hut at Cape Evans, Ross Island, built in January 1911 by Captain Robert Falcon Scott. (Lat. 77° 38′ S., Long. 166° 24′ E.) Restored in January 1961 by Antarctic Division of New Zealand Department of Scientific and Industrial Research.

17. Cross on Wind Vane Hill, Cape Evans, Ross Island, erected by the Ross Sea Party of Ernest Shackleton's Trans-Antarctic Expedition, 1914-16, in memory of three members of the party who died in the vicinity in 1916. (Lat. 77° 38′ S., Long. 166° 24′ E.)

18. Hut at Hut Point, Ross Island, built in February 1902 by Captain Robert Falcon Scott (Lat. 77° 51′ S., Long. 166° 37′ E.) Partially restored in January 1964 by the New Zealand Antarctic Society, with assistance from the United States Government.

19. Cross at Hut Point, Ross Island, erected in February 1904 by the British Antarctic Expedition, 1901-04, in memory of T. Vince, a member of that expedition who died in the vicinity. (Lat. 77° 51′ S., Long. 166° 37′ E.)

20. Cross on Observation Hill, Ross Island, erected in January 1913 by the British Antarctic Expedition, 1910-13, in memory of Captain Robert Falcon Scott's party which perished on the return journey from the South Pole, March 1912. (Lat. 77° 51′ S., Long. 166° 40′ E.)

21. Stone hut at Cape Crozier, Ross Island, constructed in July 1911 by Edward Wilson's party (British Antarctic Expedition, 1910-13) during the winter journey to collect Emperor penguin eggs. (Lat 77° 32′ S., Long. 169° 18′ E.)

22. Hut at Cape Adare built in February 1899 during "Southern Cross" Expedition led by C.E. Borchgrevink. (Lat. 71° 17′ S., Long. 170° 15′ E.) There are three huts at Cape Adare: two date from Borchgrevink's expedition, and one from Scott's Northern Party, 1910-11. Only the southernmost Borchgrevink hut survives in a reasonable state of repair.

23. Grave at Cape Adare of Norwegian biologist, Nicolai Hanson, a member of C.E. Borchgrevink's "Southern Cross" Expedition, 1899-1900. (Lat. 71° S., Long 170° 15′ E.) This is the first known grave in the Antarctic.

24. Rock cairn, known as "Amundsen's Cairn", on Mount Betty Queen Maud Range (Lat. 85° 11′ S., Long. 163° 45′ W.) erected by Roald Amundsen on 6 January 1912, on his way back to "Framheim" from the South Pole.

25. Hut and plaque on Peter I Øy, built by the Norwegian Captain Nils Larsen in February 1929 at Framnaesodden (Lat. 68° 47′ S., Long. 90° 42′ W.) The plaque is inscribed "Norvegia-ckspedisjonen 2/2 1929".

26. Abandoned installations of Argentine Station "General San Martin" on Barry Island, Debenham Islands, Marguerite Bay, with cross, flag mast, and monolith built in 1951. (Lat. 68° 08′ S., Long. 67° 08′ W.)

27. Cairn with plaque on Megalestris Hill, Petermann Island, erected in 1909 by the second French expedition led by J.-B. Charcot. (Lat. 65° 10′ S., Long. 64° 10′ W.) Restored by the British Antarctic Survey in 1958.

28. Rock Cairn at Port Charcot, Booth Island, with wooden pillar and plaque inscribed with the names of the first French expedition led by J.-B. Charcot which wintered here in 1904 aboard "Le Francais". (Lat. 65° 03′ S., Long. 64° 01′ W.)

29. Lighthouse named "Primero de Mayo" erected on Lambda Island, Melchoir Islands, by Argentina in 1942. (Lat. 64° 18′ S., Long. 62° 59′ W.) This was the first Argentine lighthouse in the Antarctic.

30. Shelter at Paradise Harbour erected in 1950 near the Chilean Base "Gabriel Gonzales Videla" to honour Gabriel Gonzales Videla, the first Head of State to visit the Antarctic. (Lat. 64° 49′ S., Long. 62° 51′ W.)

31. Memorial plaque marking the position of a cemetery on Deception Island (Lat. 62° 59′ S., Long. 60° 34′ W.) where some 40 Norwegian whalers were buried in the first half of the twentieth century. The cemetery was swept away by a volcanic eruption in February 1969.

32. Concrete monolith erected in 1947, near Arturo Prat Base on Greenwich Island. Point of reference for Chilean Antarctic hydrographic work. (Lat. 62° 29′ S., Long. 59° 40′ W.)

33. Shelter and cross with plaque near Arturo Prat Base, Greenwich Island. (Lat. 62° 30′ S., Long. 59° 41′ W.) Named in memory of Lieutenant-Commander Gonzalez Pacheco, who died tragically while in charge of the station in 1960.

34. Bust of the Chilean naval hero Arturo Prat erected in 1947 at the base of the same name on Greenwich Island. (Lat. 62° 30′ S., Long 59° 41′ W.)

35. Wooden cross and statue of the Virgin of Carmen erected in 1947 near Arturo Prat Base on Greenwich Island. (Lat. 62° 30′ S., Long. 59° 41′ W.) There is also nearby a metal plaque of Lions International Club.

36. Metal plaque at Potter Cove, King George Island, erected by Eduard Dallmann to commemorate the visit of his German expedition on 1 March, 1874. (Lat 62° 13′ S., Long. 58° 42′ W.)

37. Statue of Bernardo O'Higgins, erected in 1948 in front of the station of the same name. (Lat. 63° 19′ S., Long. 57° 54′ W.) To honour the first ruler of Chile to envision the importance of Antarctica.

38. Hut on Snow Hill Island built in February 1902 by the main party of the Swedish South Polar Expedition, led by Otto Nordenskjold. (Lat. 64° 24′ S., Long. 57° 00′ W.)

39. Stone hut at Hope Bay built in January 1903 by a party of the Swedish South Polar Expedition. (Lat. 63° 24′ S., Long. 56° 59′ W.)

40. Bust of General San Martin, grotto with a statue of the Virgin of Lujan, and a flag mast at Base "Esperanza", Hope Bay, erected by Argentina in 1955; together with a graveyard with stele in memory of members of Argentine expeditions who died in the area. (Lat. 63° 24′ S., Long 56° 59′ W)

41. Stone hut on Paulet Island built in February 1903 by C.A. Larsen, Norwegian captain of the wrecked vessel "Antarctic" of the Swedish South Polar Expedition led by Otto Nordenskjold, together with the grave of a member of that expedition. (Lat. 63° 35′ S., Long. 55° 47′ W.)

42. Area at Scotia Bay, Laurie Island, South Orkney Islands, in which are found: stone hut built in 1903 by the Scottish Expedition led by W.S. Bruce; the Argentine Meteorological and Magnetic Observatory, built in 1905; and a graveyard with seven tombs (dating from 1903). (Lat. 60° 46′ S., Long. 44° 40′ W.)

43. Cross erected in 1955, at a distance of 1,300 metres north-east of the Argentine Base "General Belgrano" at Piedrabuena Bay, Filchner Ice Shelf. (Lat. 77° 49′ S., Long. 38° 02′ W.)

Annex IV
Sites of Special Scientific Interest

Site of Special Scientific Interest No. 1
Cape Royds, Ross Island

Management Plan

(i) *Description of Site*

All that area of Cape Royds west of a line drawn from the south coast of the Cape through Flagstaff Hill to the south eastern tip of Pony Lake, and the west shoreline of this lake; and south of a line drawn from the western extremity of Pony Lake 280° True to the coast. The boundaries, which are demarcated, are shown on the attached map.

(ii) *Reasons for designation*

This area supports the most southerly Adélie Penguin (*Pygoscelis adeliae*) colony known, the survival of which is marginal. The population declined rapidly from 1956 following interference by man until 1963 when United States and New Zealand authorities agreed to restrict activities and develop a management plan for the area. It is considered important to continue study of this colony under controlled conditions, at least until the penguin population has recovered to its estimated normal pre-1956 (pre-man) level.

(iii) *Outline of research*

A long-term study of the population dynamics began in 1969 and is expected to continue.

(iv) *Date of expiry of designation*

30 June 1981.

(v) *Access points*

The Site should not be entered during the period of penguin occupation (approximately mid-October to March) except by the marked tracks. Only scientists engaged in the population studies should enter the Site during this period. Visitors to Cape Royds should not enter the Site. Photographs of the colony, except for scientific purposes, should be taken from the boundaries of the Site.

(vi) *Pedestrian and vehicular routes*

Vehicles should not enter the Site. Pedestrians should keep to the marked tracks and not move through the populated areas, except as necessary in the course of scientific investigations. Helicopters and low-flying aircraft should avoid the penguin colony in accordance with the Agreed Measures for the Conservation of Antarctic Fauna and Flora.

(vii) *Other kinds of scientific investigations which would not cause harmful interference*

Other kinds of scientific investigations should not be undertaken while penguins occupy the Site.

(viii) *Scientific sampling*

Taking samples of the bird population by killing, capture, or taking of eggs should be done only for a compelling scientific purpose and in accordance with the Agreed Measures for the Conservation of Antarctic Fauna and Flora.

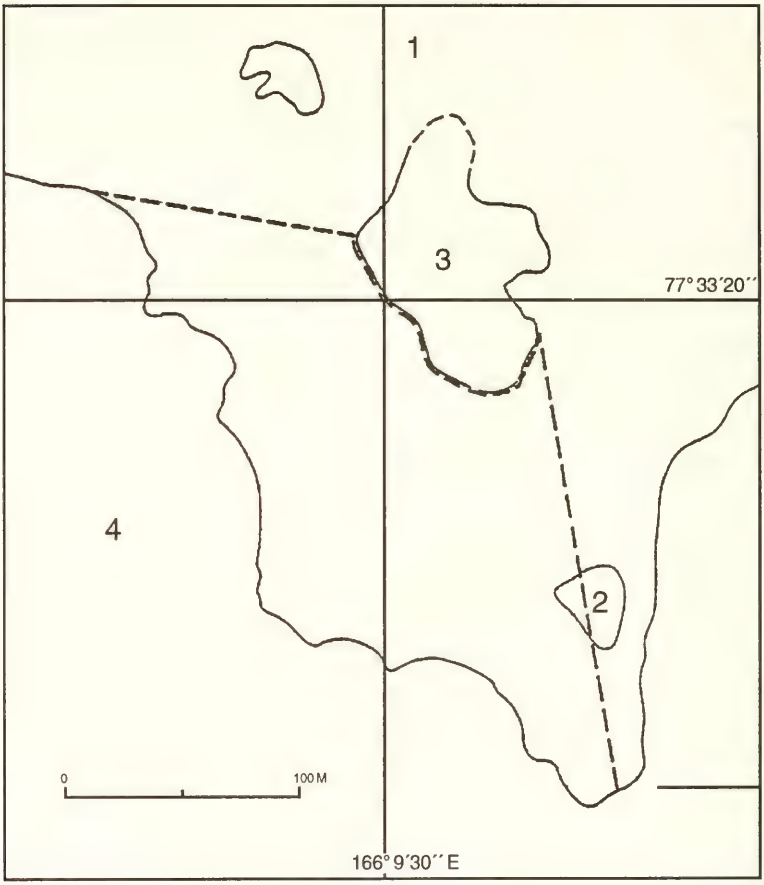
(ix) *Other restraints*

The following activities should be avoided:

1. Landscaping and removing surface material;

2. Construction of huts or buildings;

3. The depositing of any pieces of equipment or material that would in any way hinder re-occupation of nests by penguins.



No. 1

1.	Cape Royds Cap Royds Мыс Ройдс Cabo Royds	2.	Flagstaff Hill Colline Mát de Drapeau Гора Флагстафф Colina Asta de Bandera
3.	Pony Lake Lac Poney Озеро Пони Lago Haco	4.	McMurdo Sound Détroit McMurdo Залив Мак-Мердо Estrescho McMurdo

Site of Special Scientific Interest No. 2
Arrival Heights, Hut Points Peninsula, Ross Island

Management Plan

(i) *Description of Site*

All that area of Arrival Heights enclosed within a line drawn from Trig T510 north-west over First crater to the 500 foot contour, then north along this contour to a point immediately west of Second Crater, then around the lip of this crater and south to Trig T510. The boundary, which is demarcated, is shown on the attached map.

(ii) *Reason for designation*

This area is an electromagnetically and natural "quiet site" offering ideal conditions for the installation of sensitive instruments for recording minute signals associated with upper atmosphere programmes.

(iii) *Outline of research*

Upper atmosphere investigations associated with auroral and geomagnetic studies.

(iv) *Date of expiry of designation*

30 June 1981.

(v) *Access points*

None are defined but movement within the area by vehicles or personnel other than those directly concerned with the investigations should be kept to the minimum necessary for implementing the programme.

(vi) *Pedestrian and vehicular routes*

Vehicles and pedestrians should keep to the tracks shown on the attached map.

(vii) *Other kinds of scientific investigations which would not cause harmful interference*

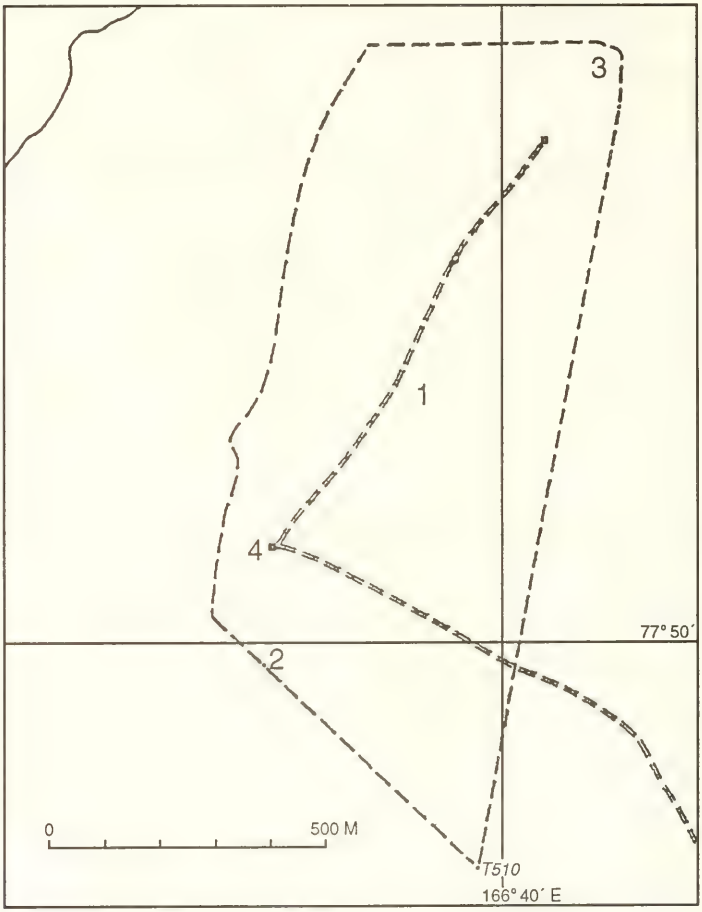
Scientific investigations other than those associated with the upper atmosphere programme should be kept to a minimum.

(viii) *Scientific sampling*

Not applicable.

(ix) *Other restraints*

No R. F. transmitting equipment other than low power transceivers for local essential communication may be installed within this Site. Every precaution should be taken to ensure that electrical equipment is adequately suppressed and correctly installed to keep man-made electrical noise to an absolute minimum.



No. 2

1. Arrival Heights
Colline de l'Arrivée
Гора Аррайвал
Alturas Arribo

2. First Crater
Premier Cratère
Первый Кра тер
Crater Primero

3. Second Crater
Deuxième Cratère
Второй Кра тер
Crater Segundo

4. Radar Station
Station Radar
Радарная Станция
Estación Radar

Site of Special Scientific Interest No. 3
Barwick Valley, Victoria Land

Management Plan

(i) *Description of Site*

The Site includes the greater part of Barwick Valley, Victoria Land, and contains parts of several glaciers, exposed soils, a lake about 3 km wide and 16 km long and a connecting stream about 5 km long leading to Lake Vashka. It is bordered on the south, west and north by the Olympus, Willett, and Clare Ranges respectively. The boundary of the Site approximates to an irregular pentagon enclosing about 325 km^2. The Site is defined by lines joining Skew Peak (77° 13′ S, 160° 43′ E), Sponsors Peak (77° 18′ S, 161° 24′ E), a point on the Insel Range (77° 24′ S , 161° 26′ E), a point in the Apocalypse Peaks (77° 24′ S, 160° 46′ E), Mount Bastion (77° 19′ S, 160° 34′ E) and Skew Peak. The boundaries are shown on the attached map.

(ii) *Reason for Designation*

Barwick Valley is one of the least disturbed and contaminated of the Dry Valleys of Victoria Land, which are environmentally unique and possess extreme polar desert ecosystems. The Site is important as a reference base against which to measure changes in comparable ecosystems of the other Dry Valleys where a considerable variety of scientific investigations have been conducted regularly over the past decade. It is also expected to be of use in connection with global environmental monitoring.

(iii) *Outline of research*

Investigations are proposed of the microbiology, bacteriology, mycology (especially of yeasts and moulds), and of the terrestrial and aquatic ecosystems, with special programmes to establish baseline measurements for biological and environmental monitoring.

(iv) *Date of expiry of designation*

30 June 1981.

(v) *Access points*

Access should be by helicopter to Wright Valley, thence into the Barwick Valley Site on foot past Lake Vashka.

(vi) *Pedestrian and vehicular routes*

Vehicles should not be used. Pedestrian routes should keep to well-drained ground avoiding streams and the lake margins as much as possible.

(vii) *Other kinds of scientific investigations which would not cause harmful interference*

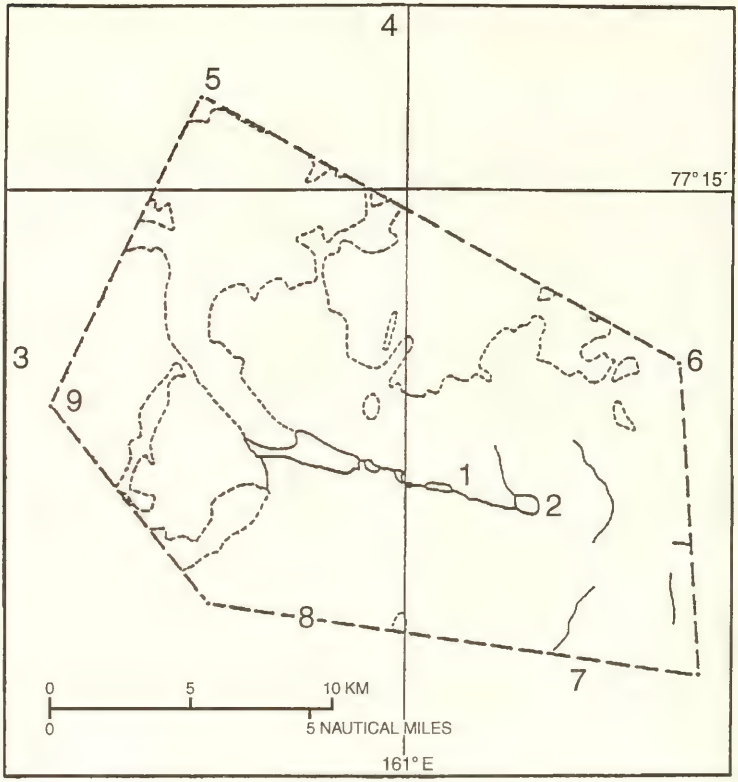
Geological, pedological, and glaciological studies except those which would introduce exotic species and those which would disrupt or damage the existing ecosystems.

(viii) *Scientific sampling*

Scientific sampling in the Site should be restricted to that which can be accomplished without introducing new organisms, including microorganisms, and without disturbing the environment.

(ix) *Other restraints*

Overflight of the Site should be avoided. Aircraft landing and vehicle parking should be kept well outside the boundaries of the Site. Field activities should be kept to a minimum. Permanent field camps, landfill disposal, and other activities which would introduce new materials or organisms, including micro-organisms, into the Site should be avoided. All materials carried into the Site should be removed.



No. 3

1. Barwick Valley
Vallée Barwick
Долина Варик
Valle Barwick

2. Lake Vashka
Lac Vashka
Озеро Вашка
Lago Vashka

3. Willett Range
Chaine Willett
Хребет Виллет
Cordillera Willett

4. Clare Range
Chaine Clare
Хребет Клэр
Cordillera Clare

5. Skew Peak
Pic Oblique
Гора Скъо
Pico Oblicco

6. Sponsors Peak
Pic Garants
Пик Спонсорс
Pico Fiadores

7. Insel Range
Chaine Insel
Пики Инзель
Cordillera Insel

8. Apocalypse Peak
Pic Apocalypse
Пик Апокалипс
Pico Apocalipsis

9. Mount Bastion
Mont Bastion
Гора Бастион
Monte Bastion

Site of Special Scientific Interest No. 4
Cape Crozier, Ross Island

Management Plan

(i) *Description of Site*

The Site comprises 40 km^2 and includes the land areas where the Adélie Penguins (*Pygoscelis adeliae*) nest and the adjacent fast ice where the Emperor Penguins (*Aptenodytes forsteri*) annually breed. It is bounded by lines joining 77° 28′ S, 169° 20′ E, 77° 28′ S, 169° 28′ E, 77° 31′ S, 169° 28′ E, 77° 31′ S, 169° 20′ E; and also includes the land area lying north of a line from 169° 20′ E, 77° 28′ S to the summit of Post Office Hill and north-east of a line which bears 315° True from the summit of Post Office Hill to the coast. The boundaries of the Site, the access track and road, the helicopter landing place and refuge hut are indicated on the attached map.

(ii) *Reason for designation*

The penguin colonies are the subject of long-term studies of population dynamics and social behaviour, and are relatively accessible by air from McMurdo Station and Scott Base. Access to the Site should be restricted to scientists engaged in investigations within the Site.

(iii) *Outline of research*

Studies of the Emperor and Adélie Penguin populations and their ethology, life cycles, physiological adaptation and natural population fluctuations. Detection of possible changes in their biological characteristics which may be due to man-induced changes in the environment.

(iv) *Date of expiry of designation*

30 June 1981.

(v) *Access points*

Access should be at points on the boundary closest to the refuge hut and the helicopter landing place.

(vi) *Pedestrian and vehicular routes*

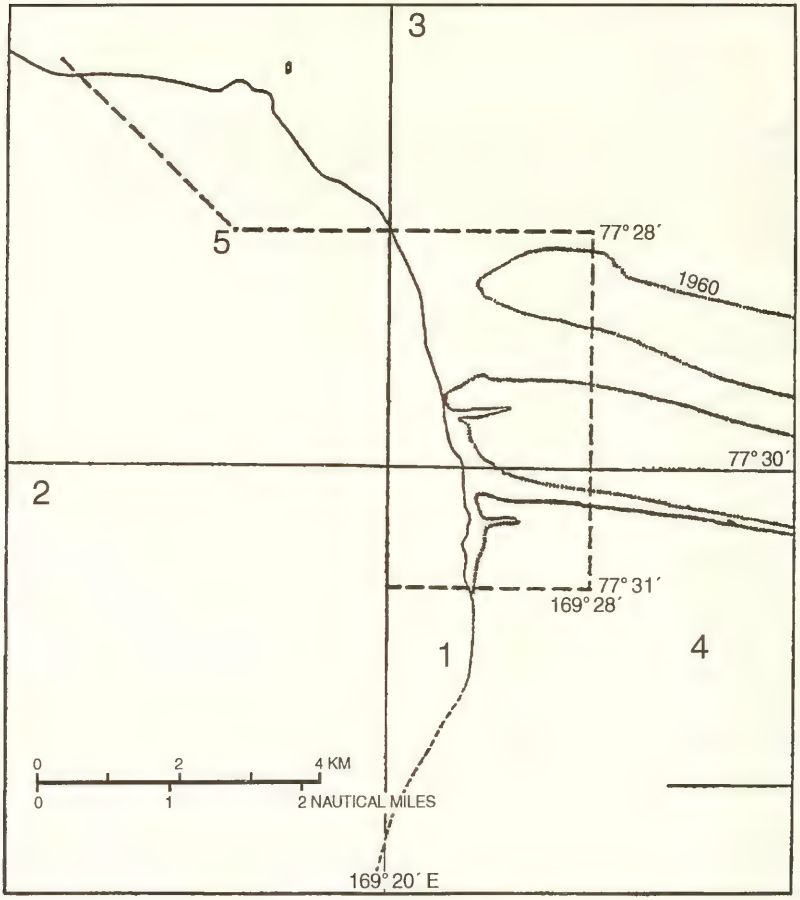
Helicopters and low-flying aircraft should avoid the Site. Vehicles should not enter the Site and should approach the Site boundary, when serving authorised activities, on courses at right angles to the boundary orientation. Pedestrian movement within the Site should be limited to the shortest routes consistent with the scientific activity.

(vii) *Other kinds of scientific investigations which would not cause harmful interference*

Biological, pedological, and geological observations except those which would cause harm to the birds or interfere with the breeding success of the penguin colonies. As far as possible such studies should be made at times when the Adélie Penguin colony is absent or when the Emperor Penguin colony is at least 1 km from the locality under scientific consideration.

(viii) *Scientific sampling*

Taking samples of the bird populations by killing, capture, or taking of eggs should be done only for a compelling scientific purpose and in accordance with the Agreed Measures for the Conservation of Antarctic Fauna and Flora. Close inspection of birds, including photography, or taking blood or other biological samples should be kept to a minimum.



No. 4

1. Cape Crozier
   Cap Crozier
   Мыс Крозир
   Cabo Crozier

2. Ross Island
   Ile Ross
   Полуостров Росса
   Isla Ross

3. Ross Sea
   Mer de Ross
   Море Росса
   Mar de Ross

4. Ross Ice Shelf
   Plateforme de Glace Ross
   Шелъфовыи ледник Росса
   Barrera de Hielo Ross

5. Post Office Hill
   Colline Bureau de Poste
   Г. Пост-Оффис
   Colina Casa de Correos

Site of Special Scientific Interest No. 5
Fildes Peninsula, King George Island,
South Shetland Islands

Management Plan

(i) *Description of Site*

The two areas on Fildes Peninsula shown on the attached map will be demarcated.

(ii) *Reason for designation*

The unique fossil ichnolites found in these areas are located close to two permanent scientific stations which have been visited frequently by tourist groups. The areas also contain representative sequences of Tertiary strata.

(iii) *Outline of research*

The main object of the research programme is to describe the Tertiary stratigraphic sequences and to understand the geological evolution of this part of the Antarctic Peninsula.

(iv) *Date of expiry of designation*

30 June 1981.

(v) *Access points*

None are defined

(vi) *Pedestrian and vehicular routes*

Vehicles and helicopters should not enter the Site except in an emergency.

(vii) *Other kinds of scientific investigations which would not cause harmful interference*

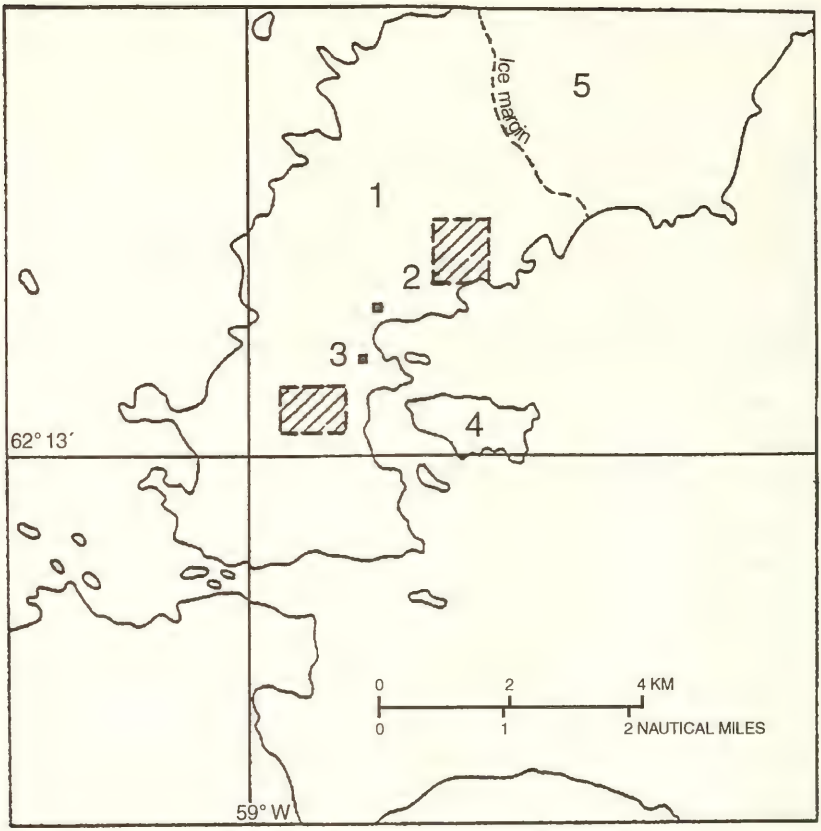
Scientific research other than geological should be kept to a minimum.

(viii) *Scientific sampling*

Samples of rocks should only be taken for compelling scientific purposes.

(ix) *Other restraints*

Building and other facilities should not be erected in the Site.



No. 5

1. Fildes Peninsula
Presqu'ile Fildes
Полуостров Файлдс

Peninsula Fildes

2. Base Bellingshausen
Base Beilingshausen
Научная станция Беллингсгаузен
Base Bellingshausen

3. Base P. Frei
Base P. Frei
Научная станция Президент-фрей
Base P. Frei

4. Ardley Island
Ile Ardley
Остров Ардлеи
Isla Ardley

5. King George Island
Ile du Roi George
Остров Кинг-Джордж (Ватерлоо)
Isla Veinticinco de Mayo
Isla Rey Jorge

Site of Special Scientific Interest No. 6
Byers Peninsula, Livingston Island
South Shetland Islands

Management Plan

(i) *Description of Site*

The Site comprises three areas of sedimentary and fossiliferous strata on Byers Peninsula. These areas are shown on the attached map.

(ii) *Reason for designation*

The fossils found in this area provide evidence of the former link between Antarctica and the other Southern Continents. A long-term paleontological research programme is in progress. It is important to protect these Jurassic and Cretaceous rocks from being used as building materials or as souvenirs.

(iii) *Outline of research*

A long-term research programme was established in 1964. The main objectives are the description of sediments and fossils found in this area.

(iv) *Date of expiry of designation.*

30 June 1981.

(v) *Access points*

None are defined.

(vi) *Pedestrian and vehicular routes*

Vehicles should not enter the Site except in an emergency.

(vii) *Other kinds of scientific investigations which would not cause harmful interference*

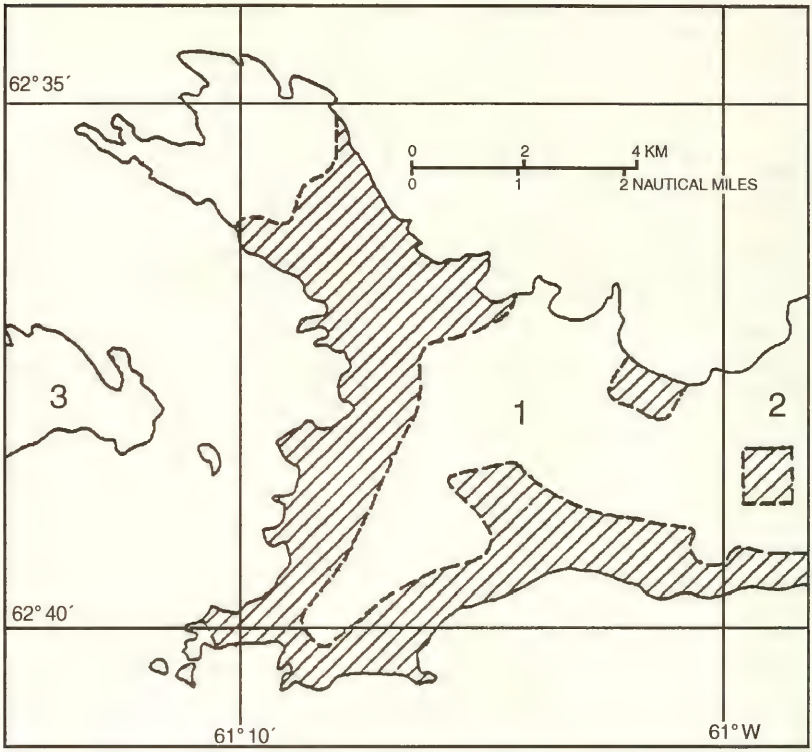
Scientific research other than geological should be kept to a minimum.

(viii) *Scientific sampling*

Samples of rocks or biological specimens should only be taken for compelling scientific purposes.

(ix) *Other restraints*

Buildings and other facilities should not be erected in the Site.



No. 6

1. Byers Peninsula
Presqu'ile Byers
Полуостров Байерс
Peninsula Byers

2. Livingston Island
Ile Livingston
Остров Ливингстон (Смоленск)
Isla Livingston

3. Rugged Island
Ile Rugged
Остров Раггед
Isla Rugosa

Site of Special Scientific Interest No. 7
Haswell Island

Management Plan

(i) *Description of Site*

The Site consists of Haswell Island (66° 31′ S, 93° 00′ E), about 1 km^2 in area, the largest of a group of islands lying close to Mirny station, together with its littoral zone and the area of fast ice, when present, lying within the delimitation shown on the attached map.

(ii) *Reason for designation*

The Site is an exceptionally prolific and representative breeding locality for all the species of birds which occur in this part of the Antarctic (five species of petrel (*Procellariiformes*), one species of skua (*Catharacta skua*), and one species of penguin (*Pygoscelis adeliae*)). The Site provides exceptional opportunities for research and needs protection in view of its close proximity to a large Antarctic station.

(iii) *Outline of research*

A long-term biological programme associated with the bird colonies and studies of the inshore marine biology are expected to continue in the Site.

(iv) *Date of expiry of designation*

30 June 1981.

(v) *Access points*

The Site may be entered from any direction but access should cause minimum disturbance to the bird colonies.

(vi) *Pedestrian and vehicular routes*

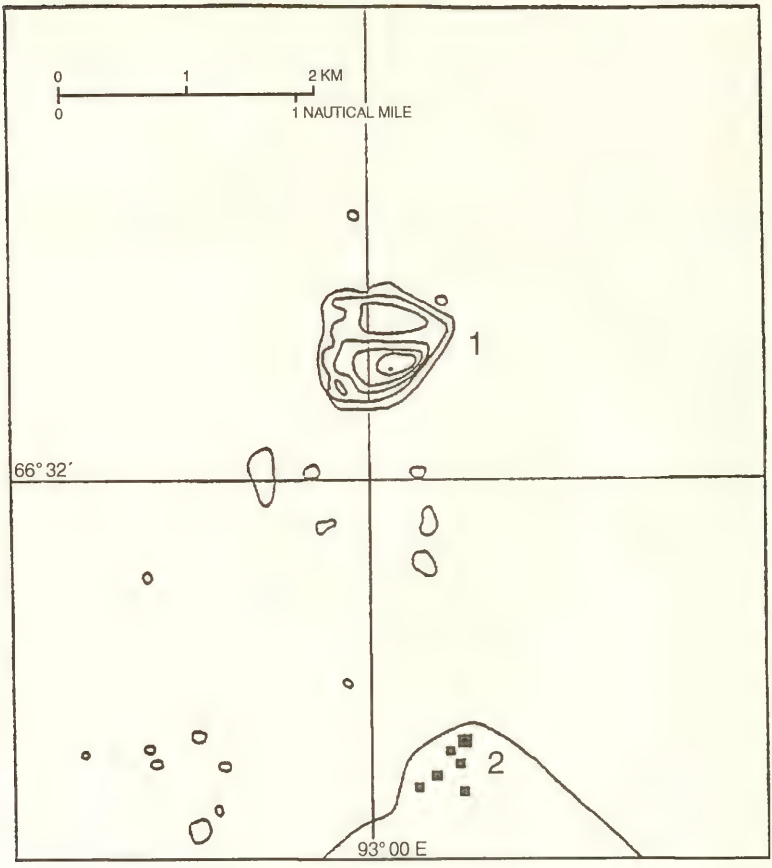
Vehicles should not enter the Site. Pedestrians should not move through the populated areas except as necessary in the course of scientific investigations. Helicopters and low-flying aircraft should avoid the bird colonies in accordance with the Agreed Measures for the Conservation of Antarctic Fauna and Flora.

(vii) *Other kinds of scientific investigations which would not cause harmful interference*

Any scientific investigation which will not cause significant disturbance to the biological programmes for which the Site has been designated.

(viii) *Scientific sampling*

Taking samples of the bird population by killing, capture, or taking of eggs should be done only for a compelling scientific purpose and in accordance with the Agreed Measures for the Conservation of Antarctic Fauna and Flora.



No. 7

1. Haswell Island
   Isle Haswell
   Остров Хасузлл
   Isla Haswell

2. Mirny Station
   Station Mirny
   Научная станция Мирный
   Estacion Mirny

Annex V
Standard Format for the Annual Exchanges of Information

1. Information in as complete a form as possible under the categories listed below is to be exchanged as early as possible but in no case later than 30 November each year.

2. Under Recommendation II-VI any extensions, reductions or other modifications of activities (in the categories marked below with an asterisk (*)) previously reported are to be furnished as soon as possible and in any case prior to 30 June following the season of activity.

3. If a category is not applicable to the activities of a particular country (for example, it has no airfields or does not intend to use research rockets) this fact should be stated.

I.* The names, types, numbers, descriptions, and armament of ships, aircraft, and other vehicles, introduced, or to be introduced, into the Antarctic Treaty Area, and information on military equipment, if any, and its location in the Area. (List only vehicles used for transport to and from Antarctica. Vehicles at individual stations are described under category VIII below.)

II.* Dates of expeditions leaving for, and arriving in, the Antarctic Treaty Area, duration of stay, itinerary to and from the Area and routes followed within the Area.

III.* The names, locations and dates of opening of the Party's bases and subsidiary stations established or planned to be established in the Antarctic Treaty Area, listed according to whether they are for summer and/or winter operations.

IV.* The names of the officers in charge of each of these bases, subsidiary stations, ships and aircraft; the number, occupations and specialisations of personnel (including any designated by other Governments), who are or will be stationed at each of these bases and subsidiary stations and on board these ships and aircraft, including the number of personnel who are members of the military services, together with the rank of any officers and the names and professional affiliations of personnel engaged in scientific activities:

A.* Officers in charge of bases.

B.* Officers in charge of ships.

C.* Officers in charge of aircraft.

D.* Number, occupations and specialisations of personnel;

1.* Summer personnel (listed according to base or ship at which working);

2.* Winter personnel (listed according to base at which working).

E.* Number of personnel who are members of the military services together with rank of any officers.

F.* Names and professional affiliation of personnel engaged in scientific activities (listed according to base or ship at which working. It would be useful to list each person's scientific disciplines as well as his affiliation).

V.* The number and types of armaments possessed by personnel.

VI.* The programme of work, including scientific investigation, being done and planned at each of these bases and subsidiary stations and on board those ships and aircraft; and also the area or areas of operation to be covered by such programme (this may be included as an Annex).

VII.* Principal scientific equipment, which may be listed according to the base at which it is customarily used (this may be included as an Annex).

VIII. Transportation facilities and communication equipment for use within the Antarctic Treaty Area:

A.* Surface, marine, and air transport vehicles at each base.

B.* Description of communications facilities using the standard form in accordance with Recommendation VI-2.

C. Description of airfields in accordance with Recommendation III-I, including particulars of location, operating conditions and limitations, radio aids to navigation, facilities for radio communications and instrument landing (this may be included as an Annex).

IX.* Facilities for rendering assistance (medical and transport services and shelter available in emergencies).

X.* Notice of any expeditions to Antarctica not organised by the Party but organised in, calling at, or proceeding from the Party's territory (including tourism in accordance with Recommendations IV-27 and VI-7).

XI.* Description of unoccupied refuges in accordance with Recommendation III-II, including name, position, description of location, date established, date last examined and estimate of available accommodation, facilities, food, fuel, and supplies of other kinds (this may be included as an Annex).

XII. Annual return of the numbers of each species killed or captured in the Antarctic Treaty Area in accordance with Article XII of the Agreed Measures for the Conservation of Antarctic Fauna and Flora, using the format annexed to Recommendation IV-19 (this may be included as an Annex).

XIII. Notice of the intended use of radio-isotopes in scientific investigations in the Antarctic Treaty Area. (Note: under Recommendation VI-6 this information is to be provided by Consultative Parties as early as possible, preferably six months in advance, but in any case annually.)

XIV. Notice of intended use of scientific research rockets in the Antarctic Treaty Area in accordance with Recommendation VI-12 including inter alia geographical coordinates of the place of launching; the time and date of launching or, alternatively, the approximate period of time during which it is planned to carry out the launchings; the direction of launching; the planned maximum altitude; the planned impact area; the type and other specifications of the rockets to be launched, including possible residual hazards; the purpose and research programme of the rocket.

XV.* Notice of ships which are carrying out substantial oceanographic research programmes in the Antarctic Treaty Area, in accordance with Recommendation VI-13 including information required under categories I, II, IV, VI, and VII above.

X-9
Twentieth Anniversary of the Antarctic Treaty

The Representatives,

Noting that the Tenth Antarctic Treaty Consultative Meeting marks the twentieth anniversary of the signature in Washington of the Antarctic Treaty and that the Eleventh Consultative Meeting in Argentina will mark the twentieth anniversary of its entry into force;

Recalling the second preambular paragraph of the Antarctic Treaty in which it is recognized that it is in the interest of all mankind that Antarctica shall continue forever to be used exclusively for peaceful purposes and shall not become the scene or object of international discord;

Conscious of:

(a) the responsibility assumed by the Consultative Parties for the protection of the environment and the wise use of the Treaty area;

(b) the increased understanding of the Antarctic and of its relationship to the world as a whole that has resulted from the endeavors of the Antarctic scientific community;

(c) the benefits derived from the co-ordination of Antarctic scientific research through the Scientific Committee on Antarctic Research (SCAR), its subsidiary institutions and from its co-operation with other international organizations having a scientific or technical interest in the Antarctic; and

(d) the value of the scientific advice from SCAR, requested by their Governments through their respective National Antarctic Committees, in connection with the development of the Antarctic Treaty system;

Recommend to their Governments that:

I.

Scientific Research

Through their respective National Antarctic Committees, or the offices administering their Antarctic research programs, as appropriate, they express their gratitude to the members of the Antarctic scientific community, past and present, and to SCAR for the devoted service which they have given to the achievement of a better understanding of the Antarctic and to the development of the Antarctic Treaty System:

II.

Commemoration of the Twentieth Anniversary
of the Entry Into Force of the Antarctic Treaty

1. They consider suitable ways of commemorating the twentieth anniversary of the entry into force of the Antarctic Treaty, including the possibility of issuing a commemorative postage stamp during 1981 on the lines indicated in Recommendation V-1;

2. Any commemorative event should be consonant with the provisions and spirit of the Antarctic Treaty.

Measures Approved or Recommended Under Article IX in Furtherance of Principles and Objectives of the Antarctic Treaty, Buenos Aires, 1981

Adopted at Buenos Aires 7 July 1981

Recommendations XI-2 and XI-3 effective 5 October 1989; Recommendation XI-1 effective 16 November 1989

Primary source citation: Antarctic Treaty: Report of the Eleventh Consultative Meeting, Ministry of Foreign Affairs and Worship, Buenos Aires, Argentina, 1981

RECOMMENDATIONS ADOPTED AT THE ELEVENTH ANTARCTIC TREATY CONSULTATIVE MEETING

XI-1
ANTARCTIC MINERAL RESOURCES

The Representatives

RECALLING the provisions of the Antarctic Treaty, which established a regime for international cooperation in Antarctica, with the objective of ensuring that Antarctic should continue forever to be used exclusively for peaceful purposes and should not become the scene or object of international discord;

CONVINCED that the framework established by the Antarctic Treaty has proved effective in promoting international harmony in furtherance of the purposes and principles of the United Nations Charter, in prohibiting **inter alia** any measures of a military nature, in ensuring the protection of the Antarctic environment, in preventing any nuclear explosions and the disposal of any radioactive waste material in Antarctica, and in promoting freedom of scientific research in Antarctica, to the benefit of all mankind;

CONVINCED, further, of the necessity of maintaining the Antarctic Treaty in its entirely and believing that the early conclusion of a regime for Antarctic mineral resources would further strengthen the Antarctic Treaty framework;

DESIRING, without prejudice to Article IV of the Antarctic Treaty, to negotiate with the full participation of all the Consultative Parties to the Antarctic Treaty an appropriate set of rules for the exploration I and exploitation of Antarctic mineral resources;

NOTING the unity between the continent of Antarctica and its adjacent offshore areas;

MINDFUL of the negotiations that are taking place in the Third United Nations Conference on the Law of the Sea;

REAFFIRMING their commitment to the early conclusion of a regime for Antarctic mineral resources which would take due account of the respective interests of the Consultative Parties as regards the form and content of the regime, including decision-making procedures, as well as the special characteristics of the Antarctic area;

RECALLING Recommendations VII-6, VIII-14, IX-1 and X-1;

RECALLING, further, Recommendations VI-4, VII-1, VIII-11, VIII-13, IX-5, IX-6 and X-7.

Recommend to their Governments that:

1. They take note of the progress made toward the timely adoption of a regime for Antarctic mineral resources at the Eleventh Consultative Meeting and related meetings and the importance of this progress.

2. A regime on Antarctic mineral resources should be concluded as a matter of urgency.

3. A Special Consultative Meeting should be convened in order:

   a) to elaborate a regime;

   b) to determine the form of the regime including the question as to whether an international instrument such as a convention is necessary;

   c) to establish a schedule for negotiations, using informal meetings and sessions of the Special Consultative Meeting as appropriate; and

   d) to take any other steps that may be necessary to facilitate the conclusion of the regime, including a decision as to the procedure for its adoption.

4. The Special Consultative Meeting should base its work on this Recommendation and the relevant Recommendations and Reports of the Eighth, Ninth and Tenth Antarctic Treaty Consultative Meetings.

5. The regime should be based on the following principles:

   a) the Consultative Parties should continue to play an active and responsible role in dealing with the question of Antarctic mineral resources;

   b) the Antarctic Treaty must be maintained in its entirety;

   c) protection of the unique Antarctic environment and of its dependent ecosystems should be a basic consideration;

   d) the Consultative Parties, in dealing with the question of mineral resources in Antarctica, should not prejudice the interests of all mankind in Antarctica;

   e) the provisions of Article IV of the Antarctic Treaty should not be affected by the regime. It should ensure that the principles embodied in Article IV are safeguarded in application to the area covered by the Antarctic Treaty.

6. Any agreement that may be reached on a regime for mineral exploration and exploitation in Antarctica elaborated by the Consultative Parties should be acceptable and be without prejudice to those States which have previously asserted rights of or claims to territorial sovereignty in Antarctica as well as to those States which neither recognize such rights of or claims to territorial sovereignty in Antarctica nor, under the provisions of the Antarctic Treaty, assert such rights or claims.

7. The regime should **inter alia;**

   I. Include means for:

      a. assessing the possible impact of mineral resource activities on the Antarctic environment in order to provide for informed decision-making;

      b. determining whether mineral resource activities will be acceptable;

      c. governing the ecological, technological, political, legal and economic aspects of those activities in cases where they would be determined acceptable, including:

         – the establishment, as an important part of the regime, of rules relating to the protection of the Antarctic environment; and

         – the requirement that mineral resource activities undertaken pursuant to the regime be undertaken in compliance with such rules.

   II. Include procedures for adherence by States other than the Consultative Parties, either through the Antarctic Treaty or otherwise, which would:

      a. ensure that the adhering State is bound by the basic provisions of the Antarctic Treaty, in particular Articles I, IV, V and VI, and by the relevant Recommendations adopted by the Consultative Parties; and

      b. make entities of that State eligible to participate in mineral resource activities under the regime.

   III. Include provisions for cooperative arrangements between the regime and other relevant national organizations.

   IV. Apply to all mineral resource activities taking place on the Antarctic Continent and its adjacent offshore areas but without encroachment on the deep seabed. The precise limits of the area of application would be determined in the elaboration of the regime.

   V. Include in provisions to ensure that the special responsibilities of the Consultative Parties in respect of the environment in the Antarctic Treaty area are protected, taking into account responsibilities which may be exercised in the area by other international organizations.

   VI. Cover commercial exploration (activities related to minerals involving, in general, retention of proprietary data and/or non-scientific exploratory drilling) and exploitation (commercial development and production).

   VII. Promote the conduct of research necessary to make environmental and resource management decisions which would be required.

8. They promote and cooperate in scientific investigations which would facilitate the effective operation of the regime taking into account, **inter alia,** the relevant parts of the Report of Ecological, Technological and other Related Experts on Mineral Exploration and Exploitation in Antarctica (Washington, June 1979), attached as an annex to the Report of the Tenth Consultative Meeting.

9. With a view to improving predictions of the environmental impacts of activities, events and technologies associated with mineral resource exploration and exploitation should such occur, they continue with the assistance of the Scientific Committee on Antarctic Research, to define programs with the objectives of:

   a. Retrieving and analyzing relevant information from past observations and research programs;

   b. Ensuring in relation to the needs for information identified by the Experts Report, that effective use is made of existing programs:

c. Identifying and developing new programs that should have priority, taking account of the length of time required for results to become available.

10. In elaborating the regime, they take account of the provisions of Recommendation IX-1, paragraph 8.

XI-2
ANTARCTIC MARINE LIVING RESOURCES

The Representatives,

Recalling the responsibilities of the Consultative Parties regarding the conservation of Antarctic marine living resources;

Recalling, further, the history of actions taken by Consultative Parties concerning protection of the Antarctic ecosystem, including in particular, Recommendations III - VIII, VIII - 10, VIII - 13, IX - 2, IX - 5 and X - 2;

Welcoming the conclusion of the Convention on the Conservation of Antarctic Marine Living Resources at a diplomatic conference held in Canberra, Australia in May 1980 and the signature of that convention, also in Canberra, Australia in September, 1980;

Noting that a meeting is to be held later this year in Hobart, Tasmania to consider steps to facilitate the early operation of the Commission, the Scientific Committee and the Executive Secretariat to be established under the Convention on the Conservation of Antarctic Marine Living Resources.

RECOMMEND to their Governments that:

1. They seek the earliest possible entry into force of the Convention on the Conservation of Antarctic Marine Living Resources; and

2. They take all possible steps to facilitate the early operation of the bodies to be established by the Convention on the Conservation of Antarctic Marine Living Resources upon entry into force.

XI-3
AIR DISASTER ON MOUNT EREBUS

The Representatives,

Recalling with respect that in the years of exploration and research many have travelled to and worked in Antarctica and not returned,

Noting that on November 28, 1979 two hundred and fifty seven people of several nationalities lost their lives when the aircraft in which they were travelling crashed into the slopes of Mount Erebus, Ross Island, Antarctica;

Aware that in spite of the determined and courageous action of members of the New Zealand and United States Antarctic expeditions that bodies of some of those who died could not be recovered;

Aware, too, that no permanent memorial may be placed on the ice slopes at the site of the tragedy;

Express their deep sympathy with the relatives of those who died and with the Government and people of New Zealand, and

Recommend to their governments that the site on the northern slopes of Mount Erebus where the accident took place be declared a tomb and that they ensure that the area is left in peace.

Measures Approved or Recommended Under Article IX in Furtherance of Principles and Objectives of the Antarctic Treaty, Canberra, 1983

Adopted at Canberra 27 September 1983

Not in effect

Primary source citation: Antarctic Treaty: Report of the Twelfth Consultative Meeting, Australian Government Publishing Service, Canberra, Australia, 1984

RECOMMENDATIONS ADOPTED AT THE TWELFTH ANTARCTIC TREATY CONSULTATIVE MEETING

XII-I

THE COLLECTION AND DISTRIBUTION OF ANTARCTIC METEOROLOGICAL DATA

The Representatives,

Recalling Recommendations VI-3 and X-3;

Noting Resolutions 4, 5, 6, 7 and 8 of the WMO Executive Committee, Thirty Fourth Session June 1982 concerning meteorological observing networks, collection and transmission of meteorological data and meteorological data processing in Antarctica;

Recognising

(1) the continuing importance of Antarctic meteorological data for support of operations within Antarctica and for weather forecasting and research, especially climate research in the rest of the world;

(2) the need to maintain a basic network of meteorological stations providing surface and upper-air synoptic data to meet in so far as possible the requirements of Consultative Parties and of the WMO World Weather Watch;

(3) the diminished value of meteorological data if it is not available to users within and outside the Antarctic in accordance with the WMO schedules for the receipt of raw and processed data;

(4) the paucity of Antarctic meteorological surface and upper air data and the consequent importance of maintaining regularity of meteorological observations; and

(5) that the increasing shipping and aircraft activities in Antarctica will give rise to increasing demands for meteorological support;

Reaffirming the importance of the WMO Global Telecommunications System (GTS) for purposes of transmitting Antarctic meteorological data between Antarctic stations in cases where direct transmission within Antarctica is inhibited by ionospheric conditions, and noting that the adoption by some Consultative Parties of satellite communications may facilitate the reception within Antarctica of meteorological data from the GTS;

Noting:

(1) that monitoring carried out by WMO in 1982 and 1983 on the flow of Antarctic meteorological data into the GTS indicates that significant deficiencies remain;

(2) the reactivation of the WMO Executive Committee Working Group on Antarctic Meteorology and the outcome of its Third Session in April 1982, including preliminary work on a review of the requirements for raw and processed data set out in Annexes 1 and 2 of Recommendation VI-3;

(3) the efforts of the WMO Meeting of Experts on Antarctic Data Telecommunication Arrangements in June 1983, in reviewing and updating the meteorological telecommunications routing diagrams set forth in Annexes 1, 2 and 3 of Recommendation X-3; and

(4) that the aforesaid WMO Meeting of Experts arrived at a number of conclusions and recommendations aimed at improving Antarctic telecommunications for meteorological purposes, and at improving the manner in which Antarctic meteorological data is transmitted within the GTS of the WMO World Weather Watch;

Recognising the need to keep under review:

(1) the requirements for raw and processed Antarctic meteorological data; and

(2) the arrangements for transmission of meteorological data within Antarctica and between Antarctica and the WMO World Weather Watch system;

Recommend to their Governments that they:

(1) use their best endeavours, subject to any overriding scientific, administrative or budgetary considerations, to secure full implementation of the network of stations and observational programs set forth in Annex 1 of this Recommendation;

(2) maintain and improve, subject to any overriding scientific, administrative or budgetary considerations, the system for collection and distribution of meteorological data to, from and within Antarctica having regard to the routing arrangements shown in Annexes 2 and 3, which are based on the conclusions of the WMO Meeting of Experts on Antarctic Data Telecommunication Arrangements in June 1983;

(3) seek, through their Permanent Representatives with WMO, the completion of Annex IV to the Final Report of the aforesaid WMO Meeting of Experts, as a helpful contribution to planning the exchange of available meteorological data;

(4) seek, through their Permanent Representatives with WMO, to ensure that consideration is given, as appropriate, to other conclusions and recommendations made by the aforesaid WMO Meeting of Experts;

(5) invite WMO through their Permanent Representatives with that Organisation, to keep under review the arrangements for routing of meteorological data within Antarctica and between Antarctica and the GTS of the World Weather Watch, and to suggest actions which might be taken to improve the timely receipt of data at stations in Antarctica and at World Meteorological Centres Melbourne, Moscow and Washington and other centres in the World Weather Watch System, having particular regard to changing requirements for meteorological information and to opportunities offered by new technology; and

(6) note that the statements of requirements for raw and processed Antarctic meteorological data provided by the WMO pursuant to Recommendation X-3 paragraph 9 require refinement, and invite WMO, through their Permanent Representatives with that Organization, to undertake such refinement.

ANNEX 1*

STATIONS AND OBSERVATIONAL PROGRAMMES COMPRISING THE BASIC SYNOPTIC NETWORK IN THE ANTARCTIC

INDEX NUMBER	NAME OF THE STATION*	SURFACE**								RADIOWIND/ RADIOVENT				RADIO-SONDE	
	1	2								3				4	
		00	03	06	09	12	15	18	21	00	06	12	18	00	12
85984	CENTRO MET. ANTARTICO PDTE. EDUARDO FREI***	X		X		X		X							
85986	B.A. ARTURO PRAT	X		X		X		X							
85988	B.A. BERNARDO O'HIGGINS	X		X		X		X							
88925	SIGNY ISLAND	X		X		X		X							
88952	FARADAY (ARGENTINE ISLAND)	X		X		X		X		X		X		X	X
88962	FOSSIL BLUFF	X		X		X		X							
89022	HALLEY	X		X		X		X		X		X		X	X
89062	ROTHERA POINT	X		X		X		X							
88963	ESPERANZA B.E.	X		X		X		X							
88968	ISLAS ORCADAS D.N. (OBSERVATORIO METEOROLOGICO)	X		X		X		X		X		X		X	X
88970	TENIENTE B. MATIENZO B.A.	X		X		X		X							
88971	ALMIRANTE BROWN E.C.	X		X		X		X							
89034	GENERAL BELGRANO II B.E.	X		X		X		X							
89045	GENERAL BELGRANO III B.E.	X		X		X		X							
89055	VICECOMODORO MARAMBIO B.A. CENTRO METERORO-LOGICO ANTARTICO***	X		X		X		X		X		X		X	X
89066	GENERAL SAN MARTIN B.E.	X		X		X		X							
89001	S.A.N.A.E. STATION	X		X		X		X		X		X		X	X
89002	GEORG VON NEUMAYER	X		X		X		X							
89009	AMUNDSEN-SCOTT	X		X		X		X		X		.		X	.
89664	MCMURDO	X		X		X		X		X		.		X	.
89050	BELLINGSHAUSEN	X		X		X		X		X		X		X	X
89132	RUSSKAYA	X		X		X		X							
89512	NOVOLAZAREVSKAJA	X		X		X		X		X		X		X	X
89542	MOLODEZNAJA***	X		X		X		X		X		X		X	X
89692	MIRNYJ	X		X		X		X		X		X		X	X
89606	VOSTOK	X		X		X		X		X		X		X	X
89657	LENINGRADSKAJA	X		X		X		X		X		X		X	X
89532	SYOWA	X		X		X		X		X		X		X	X
89571	DAVIS	X		X		X		X		X		X		X	X
89611	CASEY	X		X		X		X		X		X		X	X
94986	MAWSON***	X		X		X		X		X		X		X	X
95502	DUMONT D'URVILLE	X		X		X		X		X		X		X	X

* The names of stations are considered to be as geographical designators and are not indicative of functions.

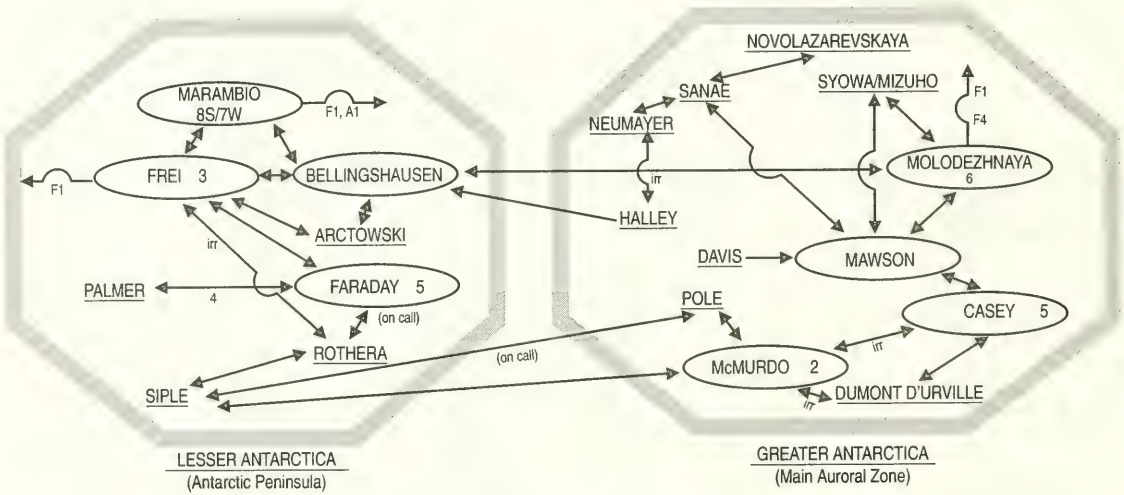
** Where possible when other requirements make it desirable, observations should also be made at some or all of the four intermediate standard times of observation, i.e. 0300, 0900, 1500 and 2100 GMT.

*** Stations carrying out data-processing and meteorological service functions.

*Note this Annex is reproduced from the Annex to Resolution 5 of the W.M.O. Executive Committee Session of June 1982 (ECXXIV).

EXISTING LINKS FOR THE DAILY INTERNATIONAL EXCHANGE OF METEOROLOGICAL DATA WITHIN THE ANTARCTIC (June 1983)

LATITUDE 60° SOUTH



NAME (S/W) — ANTARCTIC COLLECTING STATION WITH THE NUMBER OF STATIONS FROM WHICH DATE ARE COLLECTED

S: SUMMER
W: WINTER

TELECOMMUNICATION MEANS

s/w — POINT TO POINT LINK

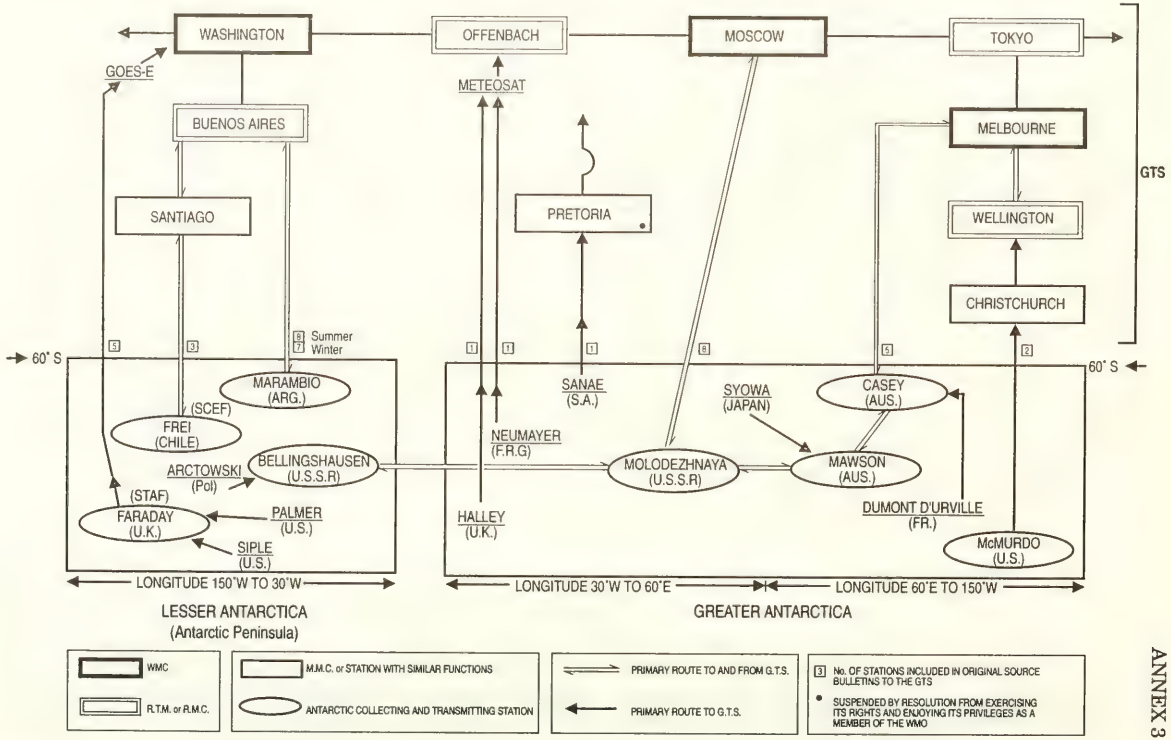
OMNIDIRECTIONAL RADIO BROADCAST

irr: IRREGULAR

RADIO BROADCASTS

FREI	F1: H + 05 (SYNOP)
MARAMBIO	A1, F1: H + 30 (SYNOP), H + 160 (TEMP)
MOLODEZHNAYA	F4, F1: H + 45 (SYNOP), H + 180 (TEMP)

PRINCIPAL ROUTES BY WHICH ANTARCTIC METEOROLOGICAL DATA ENTERS THE GTS



XII-2

ANTARCTIC TELECOMMUNICATIONS

The Representatives,

Recalling Recommendations VI-1, VII-7 and X-3;

Recognising that Antarctic telecommunications are designed to carry operational, scientific and meteorological traffic and that improvement of the telecommunications system would serve to ensure timely and full exchange of information;

Recognising that recent developments in the use of satellites, of which some Consultative Parties have made use, have improved the reliability of communication links between Antarctic stations and the outside world, but that consequent diminished reliance on conventional telecommunication methods may have affected the capability of stations to communicate with each other;

Noting with appreciation, the response of the SCAR Working Group on Logistics to the request in Recommendation X-3, paragraph 6, to prepare an Antarctic Telecommunications Guidance Manual (SCARCOM);

Noting that the increasing shipping and aircraft activity in Antarctica will require improved telecommunications and meteorological support by Consultative Parties undertaking such increased activity;

Recommend to their Governments that:

(1) they strive to ensure effective use of the Antarctic telecommunication systems already in existence, and to utilise as appropriate the developing satellite communication systems with a view to achieving improved communications between the Antarctic stations, as well as between those stations and points outside Antarctica;

(2) they invite SCAR, through their National Antarctic Committees, to:

(i) consider, in consultation with agencies responsible for national Antarctic programs (hereinafter referred to as "national Antarctic programs"), how best SCARCOM can be periodically updated so that it may provide adequate guidance to telecommunications operators on telecommunication practices of national Antarctic programs and relevant internationally agreed procedures;

(ii) examine issues relating to increased use of satellite communications including:

(a) an exchange of information and experience arising out of the adoption of satellite communications for the benefit of those national Antarctic programs which have not adopted this means of telecommunication,

(b) the cost-effectiveness of satellite communications and the benefits to operational efficiency and scientific research that may by derived therefrom,

(c) identification of any problems which may be encountered in communication between the stations of different national Antarctic programs in the event of more widespread adoption of satellite communications, and

(d) exploration of means by which any such problems might be overcome while maintaining the cost-effectiveness and other benefits of satellite communications;

(iii) examine the adequacy of the Antarctic telecommunications system to meet demands arising from the expansion of shipping and aircraft activity in Antarctica, and to suggest improvements where these might be desirable. In this examination particular attention should be given to:

(a) communications between Antarctic stations,

(b) use of the existing facilities for communications between Antarctica and the outside world, and

(c) communications between stations, ships and aircraft for the purpose of co-ordinating emergency and search and rescue operations.

XII-3

MAN'S IMPACT ON THE ANTARCTIC ENVIRONMENT

The Representatives,

Recalling Article II of the Antarctic Treaty, Recommendations VI-4, VIII-11, VIII-13 and IX-5;

Noting that in these Recommendations, which have become effective in accordance with Article IX, Paragraph 4 of the Antarctic Treaty, certain principles were elaborated and adopted, namely that:

(i) the ecosystem of the Antarctic Treaty Area is vulnerable to human interference;

(ii) the Antarctic derives much of its scientific importance from its uncontaminated and relatively undisturbed condition;

(iii) in considering measures for the wise use and protection of the Antarctic environment their Governments shall act in accordance with their responsibility for ensuring that such measures are consistent with the interests of all mankind; and

(iv) no act or activity having an inherent tendency to modify the environment over wide areas within the Antarctic Treaty Area should be undertaken unless appropriate steps have been taken to foresee the probable modifications and to exercise appropriate controls with respect to the harmful effects such uses of the Antarctic Treaty Area may have;

Recalling that in accordance with these principles there has been established for the Antarctic a substantial series of measures for the protection, conservation and wise use of Antarctic fauna and flora consisting of the Agreed Measures for the Conservation of Antarctic Fauna and Flora, the Convention for the Conservation of Antarctic Seals and the Convention on the Conservation of Antarctic Marine Living Resources;

Noting that the States involved in Antarctic research activities are in the best position to assess potential environmental impacts of such activities and to develop assessment procedures which might, with benefit, be applied to determining whether the activities they plan to conduct are likely to have significant impacts;

Considering that a measure of comparability between such procedures might, in the future, become desirable;

Affirming that environmental assessment procedures should not prejudice one of the fundamental principles of the Antarctic Treaty providing for freedom of scientific investigation as set out in Article II of the Antarctic Treaty and that such procedures should not encroach upon nor prejudice provisions for the protection of the environment and the conservation of living resources contained in instruments that have been or may, in the future, be negotiated as parts of the Antarctic Treaty system;

Recommend to their Governments that:

1. in relation to any scientific activity they plan to conduct, including the planned provision of logistic facilities to support such activity, they urge their respective national organizations responsible for Antarctic activities to continue to scrutinize the plans for such research and logistic activities, in accordance with procedures they have developed or may develop, to determine whether the planned activities are likely to have significant impacts;

2. if a preliminary determination indicates that a planned research or logistic activity could have potentially significant impacts on the environment, their relevant agencies undertake a detailed environmental assess-

ment, in accordance with procedures they have developed or may develop, with a view to determining the factors likely to cause such impacts and, if the seriousness of such impacts so indicates, to elaborating feasible research and logistic alternatives aimed at minimizing harmful effects on the environment. In the event that such an assessment is completed they notify other Consultative Parties;

3. through their National Committees, they invite the Scientific Committee on Antarctic Research (SCAR) to offer:

   (i) scientific advice regarding the definition of categories of research and logistic activity in Antarctica which might reasonably be expected to have a significant impact on the environment; and

   (ii) bearing in mind, inter alia, the discussion at this Meeting as reflected in paragraphs 17 to 19 of its Report, such advice as seems to SCAR to be relevant to the elaboration of assessment procedures which may be applied by the relevant agencies of the Consultative Parties, on an experimental basis, with regard to research and logistic activity; and

4. the question of Man's Impact on the Antarctic Environment should be considered further at the next Consultative Meeting.

XII-4

MAN'S IMPACT ON THE ANTARCTIC ENVIRONMENT

CODE OF CONDUCT FOR ANTARCTIC EXPEDITIONS AND STATION ACTIVITIES

The Representatives,

Recalling Recommendation VIII-11;

Noting a general increase in awareness amongst Consultative Parties of the potential environmental impacts of the disposal of waste in the Antarctic region;

Noting that the increasing level and degree of complexity of Antarctic operations is likely to introduce into the Antarctic a wider range of potentially environmentally damaging substances than previously;

Noting that improvements in logistics and technology increase the feasibility of on-site treatment of human and other waste, and of the removal of solid waste, residues and noxious substances from the Treaty area;

Recommend to their Governments that they seek the advice of their respective Antarctic operating agencies as to:

(i) any problems which have been experienced in implementing the Code of Conduct for Antarctic Expeditions and Station Activities contained in the Annex to Recommendation VIII-11; and

(ii) the desirability and feasibility of revising the Code of Conduct in the light of the points noted above, particularly the increased potential for on-site treatment and removal of waste from the Treaty area.

XII-5

SITES OF SPECIAL SCIENTIFIC INTEREST

The Representatives,

Recalling Recommendations VIII-3, VIII-4 and X-6;

Noting that, pursuant to Recommendation X-6, the designation as Sites of Special Scientific Interest of the Sites numbered 1, 2, 3, 4, 5 and 6 will expire on 30 June 1985, and the designation of Site No. 8 will expire on 31 March

1985, before the probable date of the Thirteenth Antarctic Treaty Consultative Meeting, and that the designation of Site No. 7 expired on 30 June 1983;

Desirous that the designation of these sites as Sites of Special Scientific Interest not be allowed to expire before the Scientific Committee on Antarctic Research (SCAR) has reviewed the Sites and presented the results of its review to the Consultative Parties;

Noting the intention of SCAR to review all Sites of Special Scientific Interest at the Eighteenth Meeting of SCAR in 1984 and to present the results of its comprehensive review to the Consultative Parties for consideration at the Thirteenth Antarctic Treaty Consultative Meeting in 1985;

Recommend to their Governments that:

1. the date of expiry of the following sites should be extended from 30 June 1985 to 31 December 1985:

   Site No. 1 : Cape Royds, Ross Island,
   Site No. 2 : Arrival Heights, Hut Point Peninsula, Ross Island,
   Site No. 3 : Barwick Valley, Victoria Land,
   Site No. 4 : Cape Crozier, Ross Island,
   Site No. 5 : Fildes Peninsula, King George Island, South Shetland Islands,
   Site No. 6 : Byers Peninsula, Livingston Island, South Shetland Islands;

2. the date of expiry of Site No. 7 : Haswell Island, should be extended from 30 June 1983 to 31 December 1985.

3. the date of expiry of Site No. 8: Western Shore of Admiralty Bay, King George Island, should be extended from 31 March 1985 to 31 December 1985; and

4. they use their best endeavours to ensure, in accordance with paragraphs 3 and 4 of Recommendation VIII-3, that the management plans of these sites are observed.

XII-6

OPERATION OF THE ANTARCTIC TREATY SYSTEM

The Representatives,

Noting that the Antarctic Treaty, based on principles of the United Nations Charter, in the interest of all mankind, establishes Antarctica as an area dedicated exclusively to peaceful purposes, to international harmony and to international scientific cooperation;

Noting further that the Antarctic Treaty, the numerous measures adopted in furtherance of the principles and objectives of the Treaty and other instruments and acts associated with it constitute a far-sighted and effective system of international co-operation, which promotes international peace and security, increase in scientific knowledge and understanding, and effective environmental protection;

Desiring to involve the Contracting Parties to the Antarctic Treaty which are not Consultative Parties more closely with the Antarctic Treaty System;

Conscious of the value of increasing public knowledge of the achievements and operation of the Antarctic Treaty System;

Recalling Article III, paragraph 2 of the Antarctic Treaty which encourages co-operative working relations with those Specialised Agencies of the United Nations and international organisations having a scientific and technical interest in Antarctica;

Recommend to their Governments that:

1. in addition to sending Consultative Parties certified copies of the Report as well as documents of Consultative Meetings as called for in Recommendation I-XIV, paragraph 1, the Government of the host country of each Consultative Meeting shall also send certified copies of the Report as well as documents of that meeting to all other Contracting Parties which were invited to that Meeting;

2. in furtherance of Article III, paragraph 2, of the Treaty, the Government of the host country shall:

   (a) on behalf of the Consultative Parties send a certified copy of the Final Report and Recommendations of regular Consultative Meetings to the Secretary General of the United Nations, and

   (b) as and when the Representatives of the Consultative Parties consider it appropriate, draw the attention of any Specialised Agency of the United Nations or other international organisation having a scientific or technical interest in Antarctica to any part of the Report of the Consultative Meeting, or any information document submitted to the Meeting and made available to the public, relevant to the scientific or technical interest which that agency or organisation has in Antarctica;

3. the "Handbook of Measures in Furtherance of the Principles and Objectives of the Antarctic Treaty" be renamed the "Handbook of the Antarctic Treaty" and:

   (a) be brought up to date by the host government as soon as possible after each Consultative Meeting,

   (b) contain an introduction outlining the background and history of the Antarctic Treaty as well as a preface to each section as appropriate giving a brief background to the measures set out in that section. The host government of the Twelfth Consultative Meeting will undertake the necessary consultations with a view to the early preparation of such introduction and prefaces, and

   (c) contain the Final Report (excluding attachments and annexes) from each Consultative Meeting;

4. (a) starting with the Thirteenth regular Consultative Meeting, Delegations should indicate, when submitting an Information Document, if they intend that document to be publicly available;

   (b) after the closure of the Meeting and provided no Consultative Party has objected, any Consultative Party or non-Consultative Party which has been invited to that Meeting may make such document publicly available on such terms as it may prescribe;

   (c) as regards Conference Documents or Information Documents of the First to the Twelfth Consultative Meeting, and Conference Documents of the Thirteenth Consultative Meeting, and subsequent Meetings, as well as Information Documents that have not been identified in accordance with paragraph (a) above as intended to be publicly available, Consultative Parties will consider in what circumstances such Documents may be made publicly available, with a view to discussing the matter further at the Thirteenth Consultative Meeting;

5. invite the depository Government to examine the question of information about the Antarctic Treaty System, including publicly available documents arising from Consultative Meetings, with a view to identifying and cataloguing publicly available information about the System and identifying the sources from which such information can be obtained; and

6. "The Operation of the Antarctic Treaty System" be included on the Agenda of the Thirteenth Consultative Meeting.

XII-7

HISTORIC SITES AND MONUMENTS

The Representatives,

Recalling Recommendations I-IX, V-4, VI-14 and VII-9

Recommend to their Governments that the following historic monument be added to the "List of Historic Monuments Identified and Described by the Proposing Government or Governments" annexed to Recommendation VII-9 and that thereafter it be accorded the respect and protection required by the Recommendations recalled above:

44. Plaque erected at the temporary Indian station "Dakshin Gangotri", Princess Astrid Kyst, Dronning Maud Land, listing the names of the members of the First Indian Antarctic Expedition which landed nearby on 9 January 1982. (Lat. 70°45′S., Long. 11°38′E.)

XII-8

SCAR ASSISTANCE TO CONSULTATIVE PARTIES

The Representatives,

Recognising that the Scientific Committee on Antarctic Research (SCAR) of the International Council of Scientific Unions comprises a unique assemblage of knowledge and expertise in Antarctic scientific fields;

Noting with appreciation the advice provided to the Antarctic Treaty Consultative Parties by SCAR in response to various requests;

Being aware that under its Constitution SCAR is charged with "furthering the co-ordination of scientific activity in Antarctica, with a view to framing a scientific program of circumpolar scope and significance";

Being aware also that the assistance requested of SCAR by the Consultative Parties imposes additional demands on scarce resources;

Recommend to their Governments:

That they consider in the light of its expertise and past assistance any requests that may be made by their national committees for additional funding to meet costs to SCAR of responding to requests for advice by the Antarctic Treaty Consultative Parties.

Measures Approved or Recommended Under Article IX in Furtherance of Principles and Objectives of the Antarctic Treaty, Brussels, 1985

Adopted at Brussels 18 October 1985

Not in effect

Primary source citation: Antarctic Treaty: Report of the Thirteenth Consultative Meeting, Kingdom of Belgium, Ministry of Foreign Affairs, External Trade and Co-operation in Development, Brussels, 1986

RECOMMENDATIONS ADOPTED AT THE THIRTEENTH ANTARCTIC TREATY CONSULTATIVE MEETING

XIII-1

OPERATION OF THE ANTARCTIC TREATY SYSTEM : INFORMATION

The Representatives,

Recalling Recommendation XII-6;

Recognizing the importance of accurate and adequate information regarding the Antarctic Treaty System,

Noting therefore the desirability of ensuring and facilitating the availability of information about the Antarctic Treaty System;

Recommend to their Governments that :

1. Efforts be continued to ensure that Final Reports of Consultative Meetings provide full and accurate records of these meetings, including :

   (a) the general trends of discussion of the specific agenda items considered as well as specific steps or actions taken as a result of decisions or recommendations adopted at previous consultative meetings; and

   (b) appropriate additional documentation of the meeting;

2. The Antarctic Treaty Handbook be regularly maintained as a current compilation of the recommendations and other actions agreed by Consultative Meetings;

3. To the greatest extent practicable and feasible and in accordance with national laws and regulations, the following be made available on request :

(a) Final Reports of Consultative Meetings,

(b) The Antarctic Treaty Handbook,

(c) Annual exchanges of information they provide under the Antarctic Treaty;

4. Their national committees be encouraged to make available, on request and in accordance with national laws and regulations, annual activities reports which these committees submit to the Scientific Committee on Antarctic Research (SCAR);

5. On request and in accordance with national laws and regulations, up-to-date information be made available, to the greatest extent practicable and feasible, on :

(a) the location of depositories of data, samples and collections resulting from scientific research in Antarctica, and

(b) the nature and location of bibliographies or other information sources concerning reports and published works related to Antarctic matters, including those related to scientific research activities in Antarctica;

6. A national contact point, or contact points, be designated and charged with the functions referred to in paragraph 3 above and maintaining the information referred to in paragraph 5 above;

7. The names and addresses of the institutions or entities designated as national contact points, pursuant to paragraph 6 above, be published as an annex to the Final Report of each Consultative Meeting and the Antarctic Treaty Handbook and be otherwise publicly disseminated.

XIII-2

OPERATION OF THE ANTARCTIC TREATY SYSTEM : OVERVIEW

The Representatives,

Recognizing the virtue of there being a regular overview of the Antarctic Treaty System, including the relationships among its components;

Believing that regular reports about the activities of these components at the Consultative Meetings would serve this objective;

Recommend to their Governments that :

1. An item "Operation of the Antarctic Treaty System : Reports" be included on the Agenda of each subsequent Consultative Meeting;

2. Under that item reports concerning developments in their respective areas of competence since the previous Consultative Meeting be received from the components of the System and that, to this end :

(a) they request the Chairman of any special Consultative Meeting, and any other meeting held pursuant to a recommendation of a Consultative Meeting, or a person designated by him, to present such a report;

(b) they invite the Commission for the Conservation of Antarctic Marine Living Resources to appoint its Chairman or other person to represent the Commission as an observer for the specific purpose of presenting such a report;

(c) through their National Committees, they invite the Scientific Committee on Antarctic Research (SCAR) to appoint its President or other person to represent the Committee as an observer for the specific purpose of reporting on :

(i) the general proceedings of SCAR;

(ii) matters within the competence of SCAR under the Convention for the Conservation of Antarctic Seals;

(iii) such publications and reports as may have been published or prepared in accordance with Recommendations IV-19 and VI-9 respectively;

(d) pending possible establishment of a Commission as provided for under the Convention for the Conservation of Antarctic Seals, they invite the Depositary Government of that Convention to report on the matters within the Depositary's competence under the Convention.

3. In preparing for each Consultative Meeting they consider, in relation to developments since the previous Consultative Meeting, whether, for the purpose of such overview, reports on any such developments in, or bearing upon, the Antarctic Treaty System would be helpful and, through the host Government for that Consultative Meeting, act accordingly.

XIII-3

EXCHANGE OF INFORMATION IN ACCORDANCE WITH THE ANTARCTIC TREATY : ANNUAL EXCHANGES

The Representatives,

Recalling Articles III and VII of the Antarctic Treaty and Recommendations VIII-6 and VIII-9;

Considering that while it is important that Consultative Parties should continue to report extensions, reductions or other modifications of activities previously reported, no practical purpose is served by requiring this information to be provided in the Antarctic winter;

Recalling the need to maintain an awareness of the activities of tourists in the Antarctic Treaty Area;

Recommend to their Governments that :

1. Operative paragraph 4 of Recommendation VIII-6 be amended as follows :

   replace the date "30 June" with the date "30 November";

2. The Annex to Recommendation VIII-6 be amended as follows :

   Paragraph 2 : replace the date "30 June" with the date "30 November";

   Paragraph 3 : add "XVI. The reports referred to in paragraph 3 of Recommendation VIII-9."

XIII-4

MAN'S IMPACT ON THE ANTARCTIC ENVIRONMENT : CODE OF CONDUCT FOR ANTARCTIC EXPEDITIONS AND STATION ACTIVITIES : WASTE DISPOSAL

The Representatives,

Recalling Recommendations VI-4, VIII-11 and XII-4;

Recognizing that Antarctica derives much of its scientific importance from its uncontaminated condition and the consequent need to reduce to the minimum level practicable the spread of all potential contaminants introduced into the Antarctic Treaty Area by man;

Noting that changes have occurred in the perception of what constitutes pollution and in analytical techniques since Recommendation VIII-11 was approved;

Noting with appreciation the preliminary review by the Scientific Committee on Antarctic Research (SCAR) of the waste disposal aspects of the Annex to Recommendation VIII-11;

Recommend to their respective Governments that through their National Antarctic Committees they invite SCAR, using all resources available to it, to undertake a comprehensive review of the waste disposal aspects of the Annex to Recommendations VIII-11 and, giving due consideration to the need to avoid detrimental effects on neighbouring or associated ecosystems outside the Antarctic Treaty Area and to considerations of cost effectiveness, to offer :

1. scientific advice regarding waste disposal procedures and standards that it is desirable to achieve at coastal and inland stations and field camps;

2. advice regarding the logistic feasibility of such procedures bearing in mind Antarctic operational circumstances, including variation in the numbers of personnel between stations, operational and logistic difficulties, and local circumstances; and

3. such other advice as seems to SCAR to be relevant to waste disposal procedures.

XIII-5

MAN'S IMPACT ON THE ANTARCTIC ENVIRONMENT : ADDITIONAL PROTECTIVE ARRANGEMENTS

The Representatives,

Recalling the measures adopted under the Antarctic Treaty for the protection of the environment, the protection of historic sites and monuments, the conservation of fauna and flora, and in particular the setting aside of Specially Protected Areas and Sites of Special Scientific Interest;

Desiring to ensure that activities in Antarctica should not harm the unique Antarctic environment, disrupt scientific investigation or other legitimate uses or be otherwise contrary to the principles and purposes of the Antarctic Treaty;

Bearing in mind that the Scientific Committee on Antarctic Research (SCAR) at the XVIIIth Meeting in Bremerhaven considered the question of the establishment of a new type of conservation area in the Antarctic;

Recommend to their Governments that through their National Committees they invite the Scientific Committee on Antarctic Research (SCAR) to offer scientific advice :

1. on the system of protected areas in the Antarctic, including Sites of Special Scientific Interest and Specially Protected Areas and the question of a possible additional category of area under a different form of protection; and

2. on steps that possibly could be taken to improve the comparability and accessibility of scientific data on Antarctica.

XIII-6

FACILITATION OF SCIENTIFIC RESEARCH : SITING OF STATIONS

The Representatives,

Recalling Recommendations I-1, VI-4, VII-1, VII-8, VIII-11 and XII-3;

Reaffirming that freedom of scientific investigation as set out in Article II of the Antarctic Treaty is one of the fundamental principles of the Treaty; and

Noting that nothing in this recommendation may be construed as prejudicing that provision of the Treaty;

Recognizing that, while there are scientific, environmental and logistic advantages to be gained from stations being in proximity to one another, there can also be disadvantages which can be avoided by appropriate consultation;

Recommend to their Governments that where stations have been established in the same vicinity the concerned national Antarctic operating agencies should consult together, by whatever means found appropriate, so as to safeguard existing scientific activities, avoid operational logistic difficulties and avoid undue adverse environmental effects arising from cumulative impacts.

XIII-7

FACILITATION OF SCIENTIFIC RESEARCH : SITES OF SPECIAL SCIENTIFIC INTEREST : INTERIM GUIDELINES : EXTENSION OF DESIGNATION

The Representatives,

Recalling Recommendations VIII-3, VIII-4, X-6 and XII-5;

Noting that :

(i) In accordance with paragraph 2 of Recommendation VIII-3 the Scientific Committee on Antarctic Research (SCAR), at its Eighteenth Meeting at Bremerhaven in September 1984, had reviewed the eight Sites of Special Scientific Interest designated in Recommendation VIII-4.

(ii) Experience of the practical effect of the management plans for these sites has shown them to be an effective means of reducing the risks of harmful interference in areas of special scientific interest.

(iii) Except for Site nº 1 no change to these management plans had been proposed by SCAR.

Recommend to their Governments that :

1. The date of expiry of designation of Site Numbers 2 - 8 be extended from 31 December 1985 to the date shown below :

Site nº 2 : Arrival Heights, Hut Point Peninsula, Ross Island : to 31 December 1987.

Site nº 3 : Barwick Valley, Victoria Land : to 31 December 1995.

Site nº 4 : Cape Crozier, Ross Island : to 31 December 1991.

Site nº 5 : Fildes Peninsula, King George Island, South Shetland Islands : to 31 December 1991.

Site nº 6 : Byers Peninsula, Livingston Island, South Shetland Islands : to 31 December 1991.

Site nº 7 : Haswell Island : to 31 December 1991.

Site nº 8 : Western shore of Admiralty Bay, King George Island, South Shetland Islands : to 31 December 1995.

2. They use their best endeavours to ensure, in accordance with paragraphs 3 and 4 of Recommendation VII-3, that the management plans of these sites are observed.

XIII-8

FACILITATION OF SCIENTIFIC RESEARCH : SITES OF SPECIAL SCIENTIFIC INTEREST : INTERIM GUIDELINES : ADDITIONAL SITES

The Representatives,

Recalling Recommendations VII-3, VIII-3, VIII-4 and X-5;

Noting that management plans have been prepared and approved by the Scientific Committee on Antarctic Research (SCAR) for certain Sites of Special Scientific Interest additional to those already designated;

Considering that it would be advantageous to gather experience of the practical effect of the management plans prepared for these sites;

Recommend to their Governments that they voluntarily take account of the management plans, annexed to this recommendation, for the following sites :

Site nº 9 : Rothera Point, Adelaide Island

Site nº 10 : Caughley Beach, Cape Bird, Ross Island

Site nº 11 : Tramway Ridge, Mount Erebus, Ross Island

Site nº 12 : Canada Glacier, Lake Fryxell, Taylor Valley, Victoria Land

Site nº 13 : Potter Peninsula, King George Island, South Shetland Islands

Site nº 14 : Harmony Point, Nelson Island, South Shetland Islands

Site nº 15 : Cierva Point and nearby islands, Danco Coast, Antarctic Peninsula

Site nº 16 : Bailey Peninsula, Budd Coast, Wilkes Land

Site nº 17 : Clark Peninsula, Budd Coast, Wilkes Land

Site nº 18 : White Island, McMurdo Sound

Site nº 19 : Linnaeus Terrace, Asgaard Range, Victoria Land

Site nº 20 : Biscoe Point, Anvers Island, Palmer Archipelago

Site nº 21 : Shores of Port Foster, Deception Island, South Shetland Islands.

ANNEXES

Site of Special Scientific Interest No. 9
Rothera Point, Adelaide Island

Management Plan

(i) Description of Site

Rothera Point (lat. 67°34′S, long. 68°08′W) is situated in Ryder Bay, at the south-east corner of Square Peninsula on the east side of Adelaide Island, south-west Antarctic Peninsula. The proposed Site is the north-eastern one-third of the point and is representative of the area as a whole. The British station Rothera lies about 350 m west of the western boundary of the Site. The boundaries of the Site are shown on the attached map.

(ii) Reason for designation

This Site serves to monitor the impact of man on an Antarctic fellfield ecosystem. The vegetation is not rich or well developed, and the soils are shallow and confined to small pockets; there is no significant avifauna. Some monitoring studies have been in progress since before the establishment of the research station in 1975.

(iii) Outline of research

Investigations incorporating the monitoring of terrestrial and freshwater macro- and micro-biota, soils and heavy metal deposition within the Site (control area) and near the site (impact area) will continue with a view to assessing the impact of the neighbouring research station.

(iv) Date of expiry of designation

31 December 1995.

(v) Access points

None designated.

(vi) Pedestrian and vehicular routes

Vehicles and helicopters are excluded. Pedestrians should enter the Site only in connection with monitoring activities. Pedestrian access is allowed to the beaches seaward of the Site.

(vii) Other kinds of scientific investigations which would not cause harmful interference

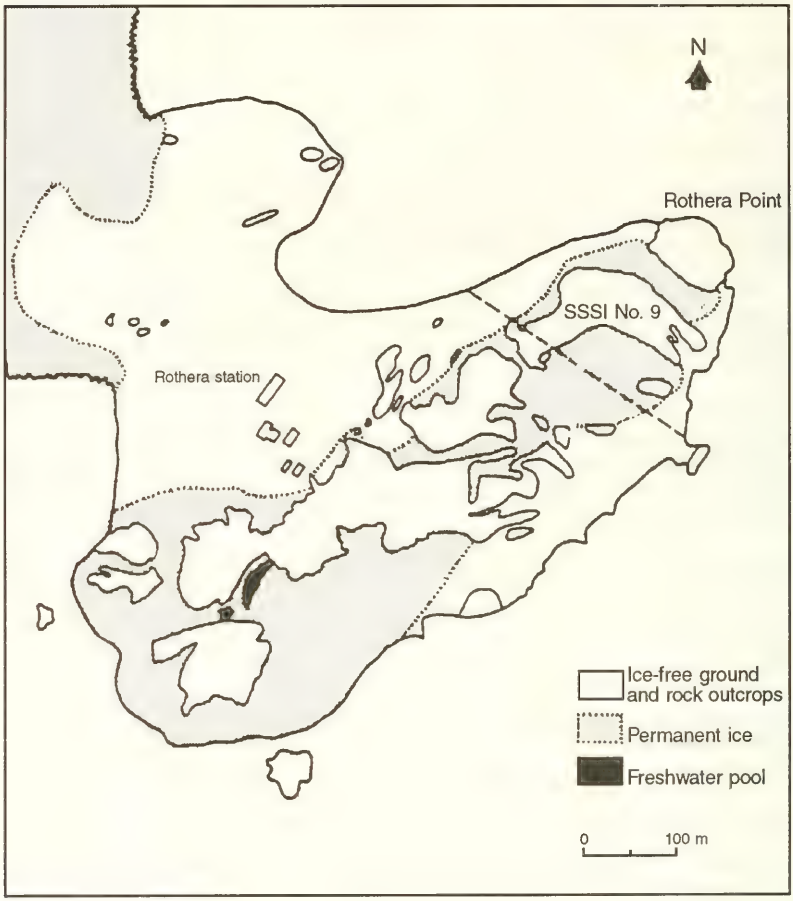
Investigation that would not affect the effectiveness of the Site for the purpose for which it has been designated.

(viii) Scientific sampling

This should be restricted to the minimum required in connection with the monitoring programme.

(ix) Other restraints

Sledge dogs associated with the research programmes at Rothera Station must not be permitted to enter the Site. Human wastes must not be deposited in the Site.


N
Rothera Point
SSSI No. 9
Rothera station
Ice-free ground and rock outcrops
Permanent ice
Freshwater pool
0
100 m

Site of Special Scientific Interest No. 10
Caughley Beach, Cape Bird, Ross Island

Management Plan

(i) Description of Site

Caughley Beach and its hinterland lie between the areas known as the Cape Bird Northern and Middle Penguin Rookeries, about 1 km north of Cape Bird, northern Ross Island (lat. 77°10′S, long. 166°40′E). The proposed Site encompasses the area between the top of the coastal cliffs of Caughley Beach and the Mt Bird Ice Cap, and between a line 200 m south of the New Zealand Antarctic Research Programme's summer station and a line 500 m north of Cape Bird Middle Adelie Penguin Rookery. The Site surrounds Specially Protected Area No. 20 on three sides and its boundaries are shown on the attached map.

(ii) Reason for designation

The Cape Bird area is the site of the most extensive stands of moss, algae, and lichens in southern Victoria Land. The terrestrial ecosystem within the Site is the subject of long-term research. Designation of the Site will protect biological experiments and monitoring sites, and provide a buffer zone around the Specially Protected Area's conservation zone.

(iii) Outline of research

Investigations incorporate monitoring of plant colonisation sites, bacteriology, mycology and phycology of terrestrial and aquatic ecosystems, physiology of terrestrial and freshwater fauna, and nitrogen cycling. The research is designed to provide a better understanding of the biogeochemical processes in Antarctic ecosystems.

(iv) Date of expiry of designation

31 December 1991.

(v) Access points

There are no restrictions on access points other than that section of the Caughley Beach cliff top which is a designated boundary shared with the Specially Protected Area.

(vi) Pedestrian and vehicular routes

Vehicles and helicopters are excluded. Pedestrians should keep to ridge lines and well drained ground.

(vii) Other kinds of scientific investigations which would not cause harmful interference

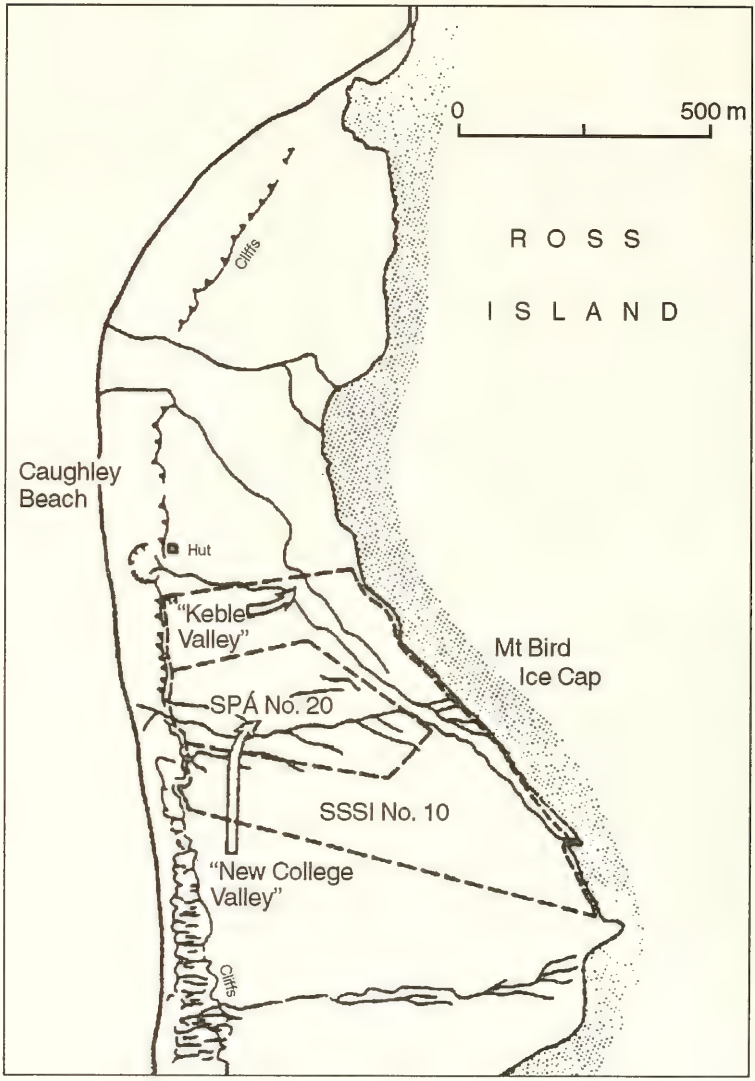
Research studies and access to the USN Astrofix with the provision that exotic biota are not introduced and ecosystems are not damaged or disrupted.

(viii) Scientific sampling

Sampling should be restricted to the minimum required and should not be undertaken to the detriment of the functioning of existing ecosystems, or of the purposes for which the Site has been designated.

(ix) Other restraints

None specified.


0
500 m
ROSS
ISLAND
Cliffs
Caughley
Beach
Hut
"Keble
Valley"
Mt Bird
Ice Cap
SPA No. 20
SSSI No. 10
"New College
Valley"
Cliffs

Site of Special Scientific Interest No. 11
Tramway Ridge, Mt Erebus, Ross Island

Management Plan

(i) Description of Site

Mt Erebus (3795 m) Ross Island, South Victoria Land is one of two active volcanoes on continental Antarctica. Tramway Ridge is situated between altitudes 3350 and 3400 m 1 km north-west of the Mt Erebus crater (lat. 77°32′S, long. 167°8′E). The Site comprises an extensive area of gently sloping warm ground located 1 km north west of the main crater of Mt Erebus at the lower end of Tramway Ridge. The boundary of the Site is a square with sides of 100 m and encompasses the entire warm ground area of lower Tramway Ridge. The 1 ha site is divided into two areas of permitted use. The northern area 'A' is designated as a reference site with all access prohibited except for pressing research reasons. The southern area 'B' is designated as a research site to accommodate on-going research programmes and sample collection. The boundaries of the Site are shown on the attached map.

(ii) Reason for designation

Mt Erebus provides one of only two known high altitude areas of fumarolic activity and associated vegetation in the Antarctic. The warm ground of the Site and its associated vegetation are of interest to botanists, phycologists and microbiologists. The Site serves as a study area for descriptive purposes and provides a reference site for future studies. In order to preserve the research status of the Site and protect it against trampling damage and alien introductions which may find conditions here favourable for survival, the area has been designated as a Site of Special Scientific Interest.

(iii) Outline of research

Botanical, phycological and microbiological studies of the Site and its associated vegetation, with particular reference to the presence of warm ground in an extremely rigorous environment.

(iv) Date of expiry of designation

31 December 1991.

(v) Access points

There are no restrictions on access points.

(vi) Pedestrian and vehicular routes

Vehicles and helicopters are excluded. Pedestrians should ensure great care is taken to avoid, wherever possible, walking on any visible vegetation and areas of heated ground.

(vii) Other kinds of scientific investigations which would not cause harmful interference

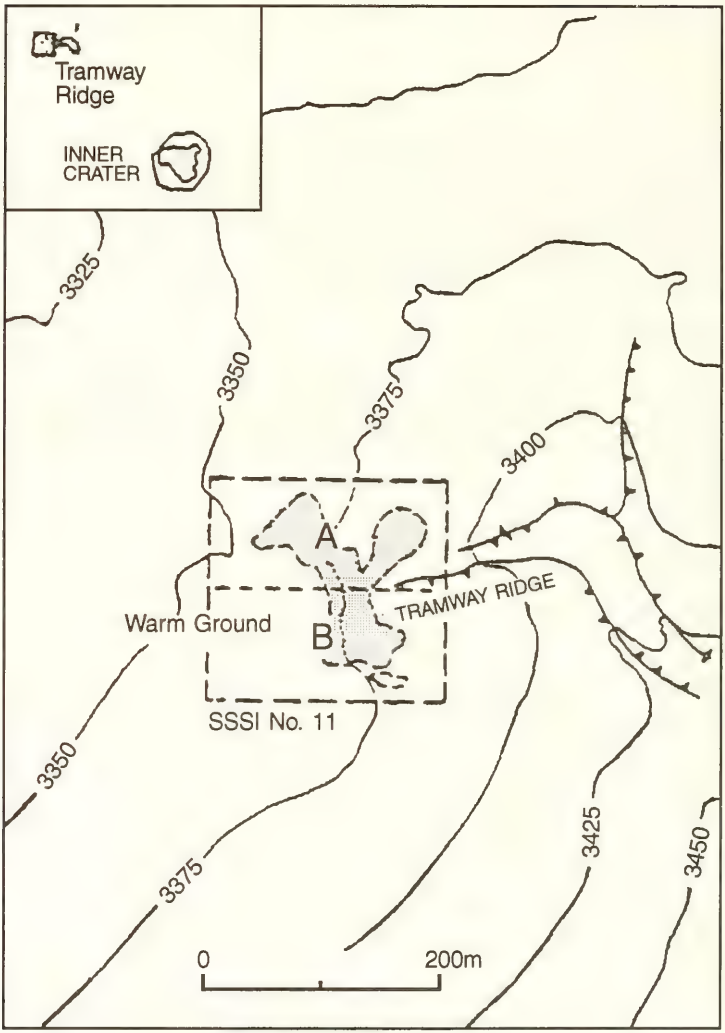
Scientific investigations which will not cause disturbance to the environment and its biota or to the biological programmes.

(viii) Scientific sampling

Samples are not to be taken from area 'A'. Sampling from area 'B' should be restrained and not be undertaken to the detriment of the sustainability of the biological communities or the interests of future investigations.

(ix) Other restraints

Sterile protective overclothing should be worn and footwear should be sterilized before entering the Site to minimise the risk of introducing alien biota to the geothermal areas. Human wastes must not be deposited within the Site.


Tramway Ridge
INNER CRATER
3325
3350
3375
3400
A
B
Warm Ground
TRAMWAY RIDGE
SSSI No. 11
3350
3375
3425
3450
0
200m

Special Scientific Interest No. 12
Canada Glacier, Lake Fryxell, Taylor Valley, Victoria Land

Management Plan

(i) Description of Site

The Site lies between Canada Glacier and Lake Fryxell in lower Taylor Valley, south Victoria Land (lat. 77°37′S, long. 163°05′E). The Site encompasses an area of 1 km^2 located between the tongue of Canada Glacier and the shoreline of Lake Fryxell. Surface features include old moraine deposits and ancient lake levels. During summer months small meltwater streams drain from the glacier to the lake creating an extensive area of flushes. The central flush area is about 100 m west of the New Zealand Antarctic Research Programme field hut. The boundaries of the Site are shown on the attached map.

(ii) Reason for designation

The Site contains some of the richest plant growth (algae and mosses) in the southern Victoria Land Dry Valleys. With the concentration of research activity within this area there is a need to regulate human impact with regard to trampling, water quality and sampling.

(iii) Outline of research

The Site is the centre of scientific research for freshwater and terrestrial biological research and a reference site for other dry valley biological ecosystems.

(iv) Date of expiry of designation

31 December 1991.

(v) Access points

Access should be from the north-east side of the Site.

(vi) Pedestrian and Vehicular routes

Vehicles are excluded, although access to the Site by helicopter is allowed but landings should be restricted to the helicopter landing pad 50 m north-east of the New Zealand Antarctic Research Programme hut.

Pedestrian movement within the Site should be restricted to designated paths and shortest routes consistent with scientific activity.

(vii) Other kinds of scientific investigations which would not cause harmful interference

None specified.

(viii) Scientific sampling

Sampling should be restricted to the minimum required and should not be undertaken to the detriment of the environment and its biota. It should be accomplished without causing introduction to new biota, including microorganisms.

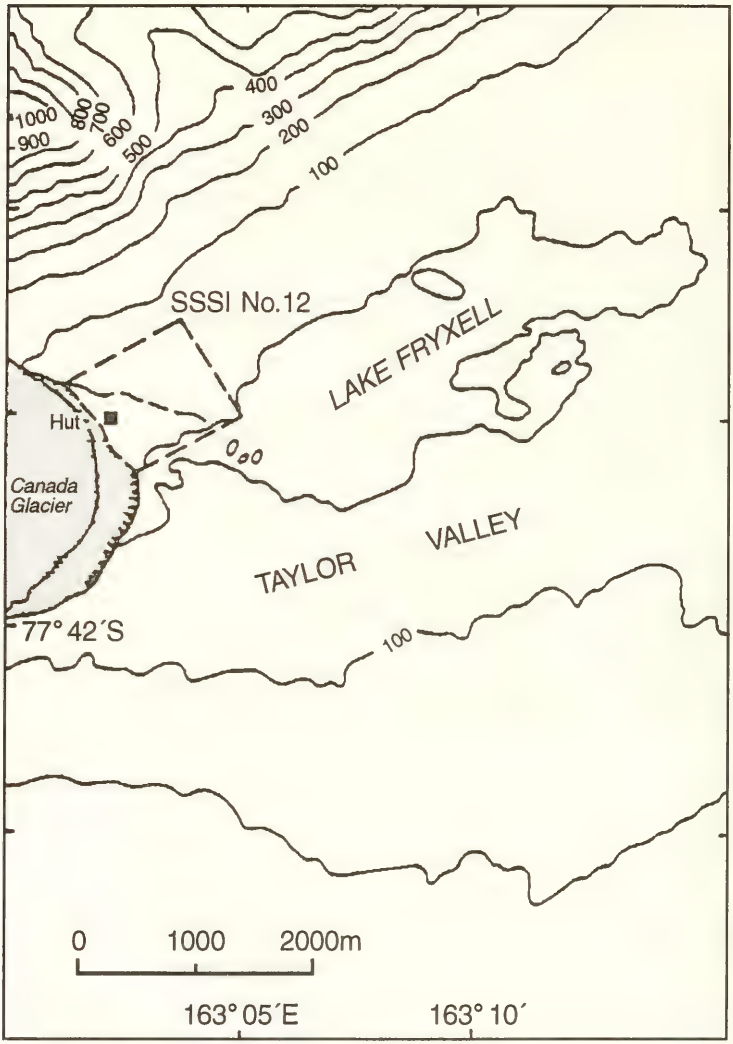
(ix) Other restraints

(a) Collection of ice for water supply should be taken from the edge of the glacier immediately south of the area of rich algal growth.

(b) All human wastes must be containerised and returned to Scott or McMurdo Stations.

(c) Tent sites are to be restricted to within a 50 m radius of the hut.

(d) Entry into the area of rich moss growth west of the hut is prohibited except for compelling scientific purposes.


1000
900
800
700
600
500
400
300
200
100
SSSI No.12
LAKE FRYXELL
Hut
Canada
Glacier
TAYLOR
VALLEY
77° 42´S
100
0
1000
2000m
163° 05´E
163° 10´

Site of Special Scientific Interest No. 13
Potter Peninsula, King George Island, South Shetland Islands

Management Plan

(i) Description of Site

The Site is located on the east side of Maxwell Bay, south-west King George Island between "Mirounga Point" and the east side of Stranger Point (lat. 62°15'S, long. 58°37'W). The Site occupies the coastal zone of variable width up to 500 m from the shoreline (low water mark) and rising to about 70 m altitude at Stranger Point. It is mainly an area of raised beaches, mostly pebble-covered, backed by basalt cliffs, terminal or lateral moraines and small glaciers. The coastline is very irregular and alternates with small bays and rocky headlands. The boundaries of the Site are shown on the attached map.

(ii) Reason for designation

This area has a diverse avian and mammal fauna and locally rich vegetation, and is located close to an Argentine research station (Jubany) frequently visited by tourist cruises. Long term research programmes could be endangered by accidental interference, especially during breeding periods.

(iii) Outline of research

The Site contains a fairly large breeding population of elephant seals (Mirounga leonina). Various research projects are being carried out, including population censuses, tagging, studies of population structure, birth and mortality rates, growth rates and analysis of blood samples for the study of protein polymorphism. The status of fur seals (Arctocephalus gazella) and other seals is also being monitored. Studies of breeding seabirds are also being made on Adelie penguins (Pygoscelis adeliae), gentoo penguins (P. papua), giant petrels (Macronectes giganteus), Dominican gulls (Larus dominicanus), sheathbills (Chionis alba), brown skuas (Catharacta lonnbergii) and Antarctic terns (Sterna vittata). This work includes nest censuses, fledgling development, predation and analysis of egg albumin to determine protein polymorphism. All the investigations have the objective of assessing the population dynamics of the different species, and the biotic and abiotic factors that regulate them.

(iv) Data of expiry of designation

31 December 1995.

(v) Access points

Access to the Site is restricted to the northern end in the vicinity of "Mirounga Point".

(vi) Pedestrian and vehicular routes

Pedestrians and vehicles must use established routes particularly during the breeding season. No vehicles or helicopters should be used near any of the breeding sites.

(vii) Other kinds of scientific investigation which would not cause harmful interference

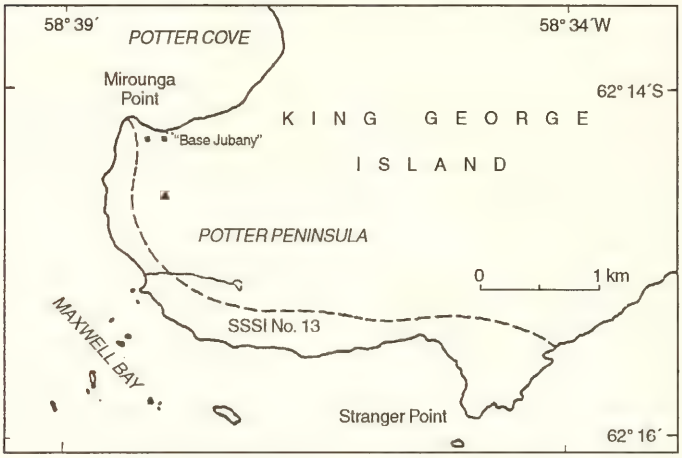
None specified.

(viii) Scientific sampling

Scientific sampling, both by killing or capturing, must be the minimum required for the research programme described above, and must conform with the Agreed Measures for the Conservation of the Antarctic Flora and Fauna.

(ix) Other restraints

None specified.



Site of Special Scientific Interest No. 14
Harmony Point, West Coast of Nelson Island, South Shetland Islands

Management Plan

(i) Description of Site

The Site is on the north-west coast of Nelson Island, between King George Island to the north-east and Robert Island to the south-west (lat. 62°18′S, long. 59°14′W). The Site includes Harmony Point and The Toe, the adjacent ice-free land and intertidal zone within the rectangle shown on the attached map.

(ii) Reason for designation

This area is of special scientific interest, being situated in an area rich in avian species. Vegetation cover is extensive, often dense and comprises a relatively rich flora including both species of vascular plants. Its rocky coasts are inhabited by large numbers of marine invertebrates. Long-term research programmes could be disrupted by accidental interference, the destruction of the vegetation and substratum, and the perturbation of nesting areas.

(iii) Outline of research

Argentine and Chilean research in the area includes the following ornithological activities: nest censuses, juvenile mortality studies, growth studies, banding, and studies on predators, ie. leopard seal (Hydrurga leptonyx), giant petrel (Macronectes giganteus) and skuas (Catharacta spp.). The relationships between the flora and nesting areas of the various bird species are being studied. In the tide pools ecological studies are continuing. The results are compared with those from other research sites in order to understand the relationships among different littoral systems.

(iv) Date of expiry of designation

31 December 1995.

(v) Access points

Access to the Harmony Point area is restricted to access from the sea, across the pebble beach situated to the south-west of Inca Point, 400 m south-south-west of the refuge. Special access points are not specified for The Toe.

(vi) Pedestrian and vehicular routes

Pedestrians must use established routes, particularly during the bird breeding season. Helicopters must not overfly any of the bird breeding areas below the height stated in the Agreed Measures, and should land only in the vicinity of the refuge or landing beach, and should not land anywhere on The Toe. There is no vehicular access.

(vii) Other kinds of scientific investigations which would not cause harmful interference

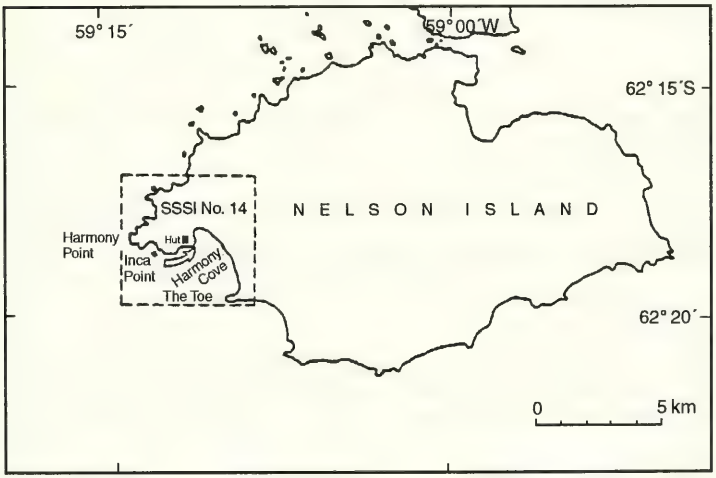
None specified.

(viii) Scientific sampling

All sampling, including killing or capturing of fauna, must be the minimum required for the approved scientific programmes and must conform to the Agreed Measures for the Conservation of the Antarctic Flora and Fauna.

(ix) Other restraints

No refuse should be deposited within the Site, or at sea beyond the Site in a manner which may allow it to be washed ashore within the Site. The refuge should be maintained in a habitable state and all refuse and unwanted materials associated with it should be removed from the Site.



Site of Special Scientific Interest No. 15
Cierva Point and Offshore Islands, Danco Coast, Antarctic Peninsula

Management Plan

(i) Description of Site

Cierva Point (lat. 64°10′S, long. 60°57′W) is at the north-west of the peninsula on the south side of Cierva Cove at the north end of Hughes Bay. (It should not be confused with Spring Point on the south side of Brialmont Cove in Hughes Bay.) The Site comprises the Cierva Point peninsula encompassing the land west of an imaginary line from the south east of the north side of the Point through the summit of Mojon Hill to the south-east of the south side of the Point. Also included are Sterneck Island and Midas Island and Moss Islands, which lie mainly between Midas Island and Cierva Point. Although the intertidal zone of each of these areas is included in the Site, the sub-tidal marine environment is not included. Base Primavera and all its associated installation and areas of disturbance are excluded from the Site.

(ii) Reason for designation

The area has a special scientific value in that it sustains important avian populations, extensive vegetation and a diverse flora including the two Antarctic flowering plants and several liverworts, and invertebrate fauna; its littoral possesses abundant tidal pools inhabited by large numbers of marine invertebrates. Long-term research programmes could be endangered by accidental interference, destruction of the vegetation and soil, pollution of rock pools, and perturbation of breeding birds.

(iii) Outline of research

Eight species of bird are being studied. The studies include: nesting censuses, growth of fledglings, banding, mortality of young by predation and study of predators, especially leopard seals (Hydrurga leptonyx) and giant petrels (Macronectes giganteus). The relationship between the vegetation and bird colonies is being studied. Studies of Antarctic hair grass (Deschampsia antarctica) and Antarctic pearlwort (Colobanthus quitensis) are being undertaken. The ecology of the relatively diverse fauna of the intertidal pools is being studied in detail.

(iv) Date of expiry of designation

31 December 1995.

(v) Access points

Access to Cierva Point should be at one point only, a landing area to the west of the research station. No access points are specified for any of the islands.

(vi) Pedestrian and vehicular routes

Pedestrians must keep to established routes, particularly in densely vegetated areas and in bird breeding areas.

(vii) Other kinds of scientific investigations which would not cause harmful interference

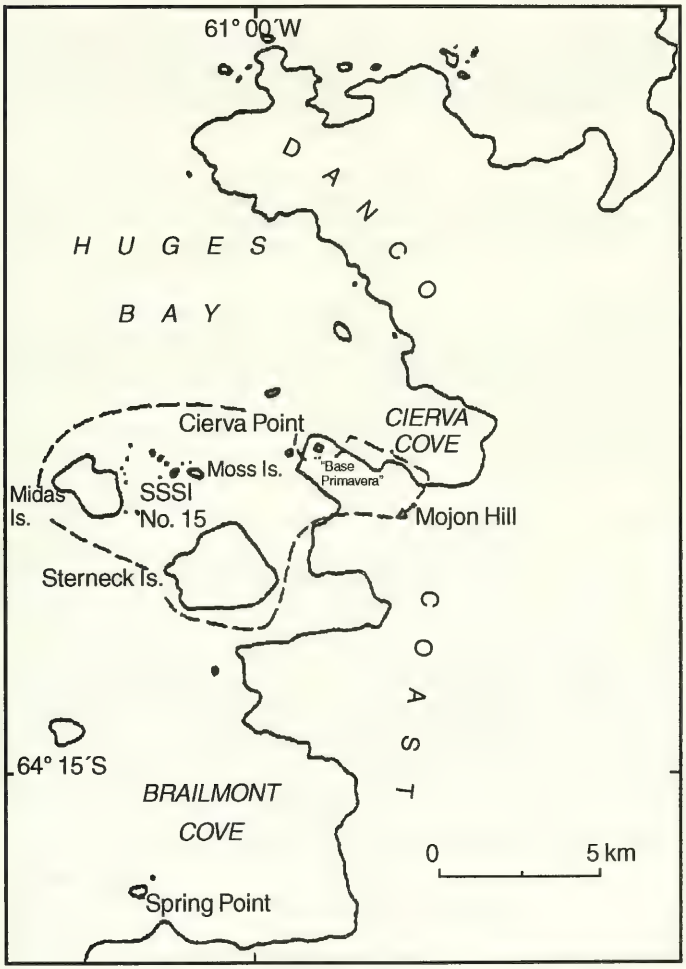
Any research which will not have a detrimental impact on the environment.

(viii) Scientific sampling

All sampling must be the minimum required for approved scientific projects, and must conform to the Agreed Measures for the Conservation of the Antarctic Flora and Fauna. No sampling of any kind (eg. for souvenirs) is permitted for any other reason, especially by tourists.

(ix) Other restraints

No waste of any description should be disposed of within the Site, or at sea in a manner which will allow it to be washed ashore within any part of the Site.


61° 00´W
D A N C O
H U G E S
B A Y
Cierva Point
CIERVA
COVE
Moss Is.
"Base
Primavera"
Midas
Is.
SSSI
No. 15
Mojon Hill
Sterneck Is.
C O A S T
64° 15´S
BRAILMONT
COVE
0
5 km
Spring Point

Site of Special Scientific Interest No. 16
North-East Bailey Peninsula, Budd Coast, Wilkes Land

Management Plan

(i) Description of Site

Bailey Peninsula is situated between Newcomb and O'Brien Bays at the west end of Vincennes Bay, opposite the Windmill Islands, on Budd Coast at lat. 66°17′S, long. 110°32′E. The Site consists of an irregular area of rock exposed during summer, Surrounding the Casey Station transmitter building. The boundary, which is demarcated, is shown on the map attached to the Management Plan for Site of Special Scientific Interest No. 17.

(ii) Reason for designation

The Site is not unique in the Windmill Islands region context but is representative of a diverse assemblage of vegetation; it contains contrasting habitats and water bodies; has extremely rich (by continental Antarctic standards) lichen and moss communities and an important stand of liverwort. Proximity to Casey Station minimises logistic problems with respect to field research and, at the same time, maximises the potential for disturbance of study areas. It is primarily for this latter reason that this Site, where research is concentrated, requires protection.

(iii) Outline of research

The Site contains three extensive and contrasting moss fields which are the subject of taxonomic, ecological and physiological studies which commenced during the summer of 1982-83. Additional studies include population ecology of invertebrates associated with the vegetation, and soil/water chemistry. Permanent lichen growth monitoring sites have also been established as have sites monitoring annual growth increments in mosses.

(iv) Date of expiry of designation

31 December 1995.

(v) Access points

None specified, although access to the transmitter building near the south-east end of the Site should be via the ice/snow of the oversnow access route to Law Dome, several kilometres to the south.

(vi) Pedestrian and vehicular routes

Access to the area should be restricted as far as possible to that necessary to conduct scientific work and operate the transmitter building. Vehicles should be restricted to existing access routes. These are clearly demarcated. No helicopter landing permitted within the Site. Particular care should be taken to avoid damage to bryophytes and lichens, disrupting of soils and periglacial features, and to avoid causing changes to water quality or drainage.

Selected study reference areas (eg. three contrasting moss communities) have been delimited by marked stakes without causing disturbance to the environment. Access to these areas should be restricted to scientists participating in the study programme.

(vii) Other kinds of scientific investigations which would not cause harmful interference

Scientific research other than the programmes for which the Site has been designated should be kept to a minimum.

(viii) Scientific sampling

Sampling should be kept to the minimum and should not affect the existing research programmes.

(ix) Other restraints

No storage or disposal of any products relating to human occupancy of the Station should occur in the Site.

Site of Special Scientific Interest No. 17
Clark Peninsula, Budd Coast, Wilkes Land

Management Plan

(i) Description of Site

Clark Peninsula is situated on the north side of Newcomb Bay at the west end of Vincennes Bay, opposite Windmill Islands, on Budd Coast, at lat. 66°15′S, long. 110°36′E. The Site comprises all land on Clark Peninsula within the southern boundary line connecting the east site of Stevenson Cove to trigonometrical station NM/5/6, trig. station G3 and a point to the east-south-east on Loken Moraines. The western boundary is the easternmost limit of Loken Moraines as far north as a point due east of Blakeney Point, and thence to the coast. The boundary of the Site is indicated by prominent markers, and is shown on the attached map.

(ii) Reason for designation

Within the Site moss and lichen communities are being used as control sites to monitor environmental impact at Casey Station. These remote study areas provide baseline data with which to compare changes associated with the research station.

(iii) Outline of research

Lakes in a valley running south-west from Stevenson Cove towards the former Wilkes Station contain copepods which are not known elsewhere in the Windmill Islands area and are the subject of ongoing studies. The Adelie penguin colony at Whitney Point has been the site of intensive studies. This well studied site will provide a baseline for comparison with changes in other colonies in the region. Monitoring studies commenced during the summer of 1982-83.

Physiological studies of mosses are underway. Ecological studies of bryophyte and lichen vegetation and associated invertebrate fauna, algae and fungi and studies of moss growth and development in relation to taxonomic interpretation will be undertaken.

(iv) Date of expiry of designation

31 December 1995.

(v) Access points

None specified.

(vi) Pedestrian and vehicular routes

Access to Wilkes Station is via a well-defined route on the southern side of the Site. Pedestrian and vehicular traffic should keep to this route, and in Particular should not stray northward of it. Vehicular traffic within the Site should be restricted to oversnow access to Wilkes Station. Helicopters should not land within the Site. It is unlikely that pedestrian traffic will cause undue disturbance to the Site. However, travel should, where possible, be via snow, avoiding ice-free areas.

(vii) Other kinds of scientific investigations which would not cause harmful interference

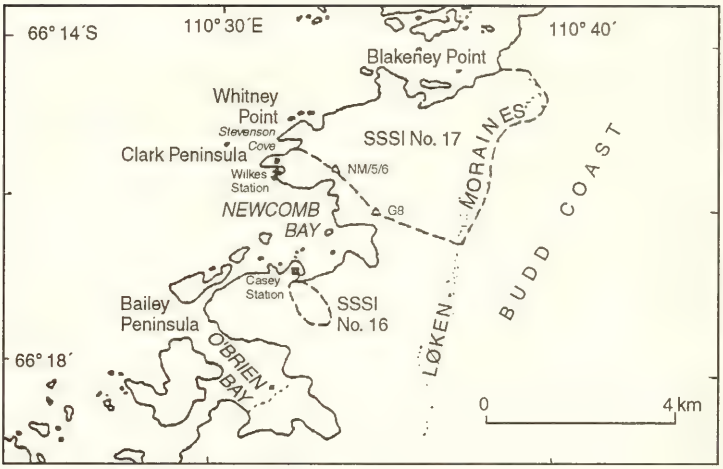
Scientific research other than the programmes for which the Site has been designated should be kept to a minimum.

(viii) Scientific sampling

Sampling should be the minimum required for the approved research programmes.

(ix) Other restraints

Field refuge huts, if deemed necessary for facilitation of scientific studies, should be placed with care so as to avoid any potential contamination of the environment, or interference with plant or animal life. Maintenance of the existing state of the Site is important for fulfilment of the stated research objectives.


66° 14´S
110° 30´E
110° 40´
Blakeney Point
Whitney Point
Stevenson Cove
Clark Peninsula
SSSI No. 17
Wilkes Station
NM/5/6
G8
NEWCOMB BAY
MORAINES
BUDD COAST
Casey Station
Bailey Peninsula
SSSI No. 16
66° 18´
O'BRIEN BAY
LØKEN
0
4 km

Site of Special Scientific Interest No. 18
North-West White Island, McMurdo Sound

Management Plan

(i) Description of Site

White Island (lat. 78°10′S, long. 167°25′E) rises out of the Ross Ice Shelf, about 30 km south-south-east of Hut Point, Ross Island. The Site includes the north-west coastline of White Island from Cape Spencer-Smith in the north to a point protruding into the Strait between White and Black Islands in the south-west. It extends from high water mark to 5 km offshore, across the Ross Ice Shelf. The boundary of the Site is shown on the attached map.

(ii) Reason for designation

This Site supports a small breeding population of Weddell seals (Leptonychotes weddellii) which is physically isolated from the rest of mainland Antarctica by shelf ice. It is one of very few areas where Weddell seals feed under shelf ice. It is also one of the most southerly Weddell seal Populations and has been studied year round.

(iii) Outline of research

This unique Weddell seal population is the focus of continuing research in the area. Several hypotheses have been proposed to explain how this population originated and has remained isolated, 25 km from the nearest open water.

(iv) Date of expiry of designation

31 December 1991.

(v) Access points

None designated.

(vi) Pedestrian and vehicular routes

Vehicles should approach no closer than 500 m to the seal population and helicopters and low-flying aircraft should avoid the area, approaching no lower than 250 m altitude.

(vii) Other kinds of scientific investigations which would not cause harmful interference

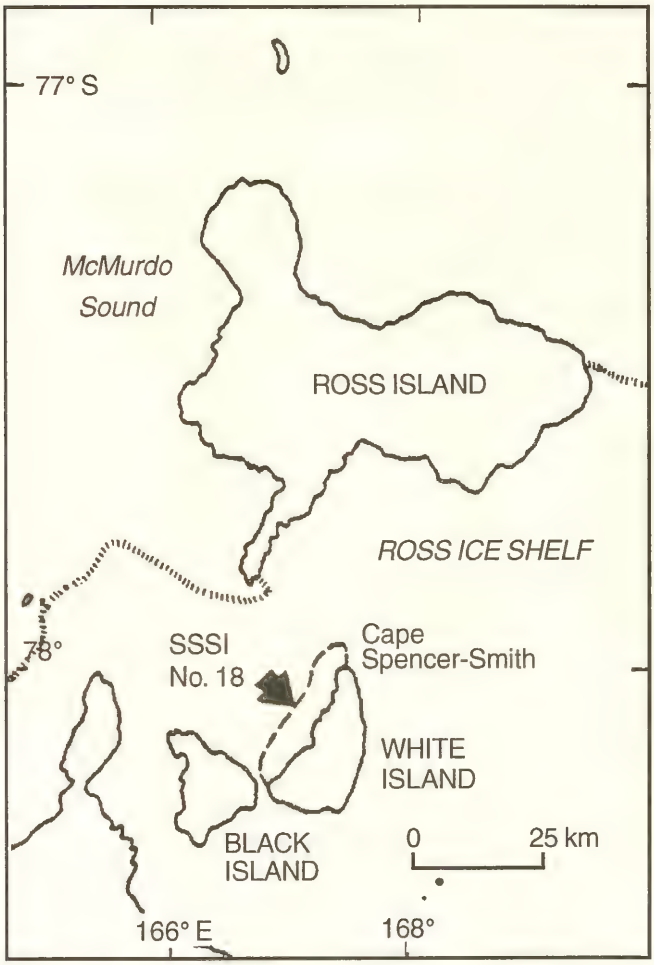
None specified.

(viii) Scientific sampling

Taking samples of Weddell seals by killing or capture should be done only for compelling scientific purpose and in accordance with the Agreed Measures for the Conservation of Antarctic Fauna and Flora.

(ix) Other restraints

No underwater explosives may be used for any purpose.


77° S
McMurdo
Sound
ROSS ISLAND
ROSS ICE SHELF
78°
SSSI
No. 18
Cape
Spencer-Smith
WHITE
ISLAND
BLACK
ISLAND
0
25 km
166° E
168°

Site of Special Scientific Interest No. 19
Linnaeus Terrace, Asgaard Range, Victoria Land

Management Plan

(i) Description of Site

The Site (lat. 77°36′S, long. 161°07′E) lies at the west end of the Asgaard Range to the north of Oliver Peak. It is between Don Juan Pond in South Fork Valley, south-west of Wright Valley, and Inland Forts, a small mountain range south-west of the Asgaard Range. The Site includes the flat terrace north and east of Oliver Peak, between about 1500 m and 1650 m altitude. Its boundaries are shown on the attached map.

(ii) Reason for designation

Linnaeus Terrace is one of the richest localities for the unique cryptoendolithic communities which colonize the Beacon Sandstone. Exposed rock surfaces exhibit a range of biological and physical weathering forms.

(iii) Outline of research

Numerous scientific investigations have been and will continue to be conducted at the Site. The lichen flora has been extensively surveyed. The Site is typical for the monotypic green algal genus Hemichloris (H. antarctica). Microbiological studies of the cryptoendolithic ecosystem and year-round meteorological and micrometeorological measurements have been undertaken.

(iv) Date of expiry of designation

31 December 1995.

(v) Access Points

No access points are specified for pedestrians but access by helicopter should be at the designated and marked landing site only.

(vi) Pedestrian and vehicular routes

Vehicles should not enter the Site. Pedestrian traffic should be kept to a minimum.

(vii) Other kinds of scientific investigations which would not cause harmful interference

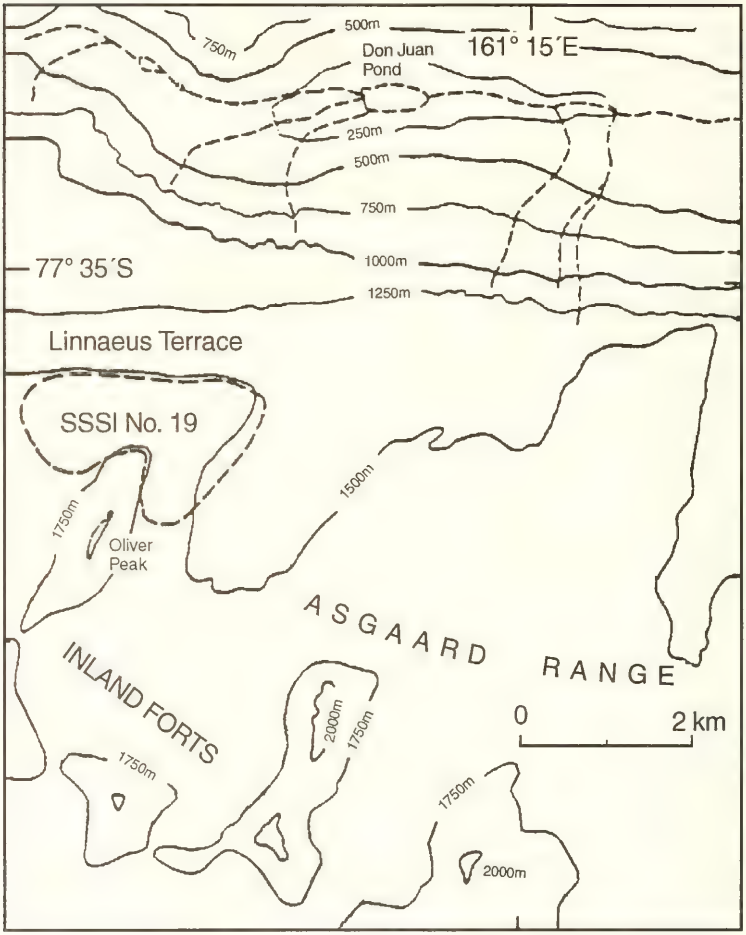
All other scientific activities should be kept to an absolute minimum.

(viii) Scientific sampling

Scientific sampling and field activities should be restrained and cause minimal disturbance to the environment. Rocks should not be moved from their natural position. Great care should be exercised to avoid accidental breakage of fragile rock formations, and disturbing periglacial features.

(ix) Other restraints

Camping should be limited to the designated camping area in the immediate vicinity of the landing pad. Urinations should be limited to a marked spot about 20 m east of the landing pad. Other human waste and all refuse should be removed from the Site.


500m
750m
Don Juan
Pond
161° 15´E
250m
500m
750m
77° 35´S
1000m
1250m
Linnaeus Terrace
SSSI No. 19
1500m
1750m
Oliver
Peak
ASGAARD
RANGE
INLAND FORTS
0
2 km
2000m
1750m
1750m
1750m
2000m

Site of Special Scientific Interest No. 20
Biscoe Point, Anvers Island, Palmer Archipelago

Management Plan

(i) Description of Site

Biscoe Point (lat. 64°49′8, long. 63°49′W) is situated on the south-east side of Biscoe Bay on the south side of Anvers Island in the Palmer Archipelago off the mid-west coast of the Antarctic Peninsula. The Site includes the rocky promontory ending in Biscoe Point, the smaller headland immediately to the north and the small islet off the south-west of Biscoe Point. A narrow area of land between the two promontories is included, as is the inshore marine environment within the Site boundaries, which are shown on the attached map.

(ii) Reason for designation

This Site contains a large (approximately 5000 m^2) but discontinuous stand of the two native vascular plants, Antarctic hair grass (Deschampsia antarctica) and, less commonly, Antarctic pearlwort (Colobanthus quitensis). A relatively well developed loam occurs beneath closed swards of the grass and contains a rich biota, including the apterous midge Belgica antarctica. Long-term research programmes could be jeopardised by interference from nearby Palmer Station and from tourist ships.

(iii) Outline of research

Several plant community studies are in progress. Most of the available surfaces support the two Antarctic vascular plants which form several communities, particularly on the north facing slope. Some communities are dominated by the vascular plants, particularly the grass; in others the co-dominants or subordinate taxa are mosses or lichens. The discontinuous vascular plant stand occurs on more or less flat, mesic terrain with fine mineral soil. It contains large (up to 20 m^2) patches of dead vascular plants which appear to be produced by environmental fluctuations, such as desiccation, flooding and frost during some summers.

(iv) Date of expiry of designation

31 December 1995.

(v) Access points

None specified.

(vi) Pedestrian and vehicular routes

Vehicles should not enter the site and helicopter landing should be made outside the Site. Boat landings are permitted at any point. Tourists and other casual visitors should not enter the Site.

(vii) Other kinds of scientific investigations which would not cause harmful interference

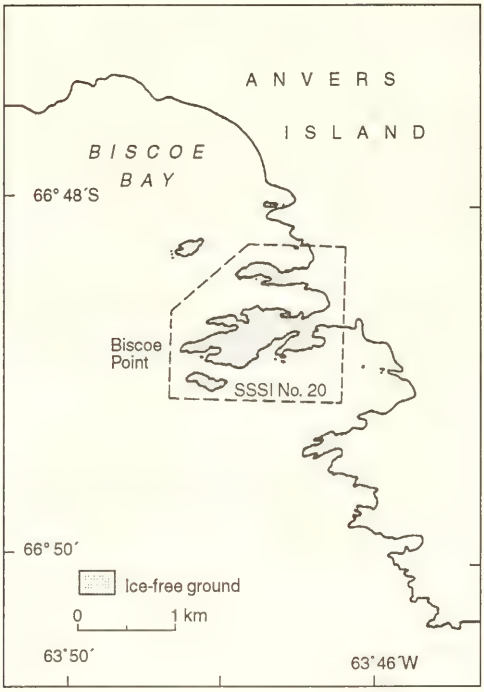
Besides the botanical studies outlined above, the Site offers excellent opportunities for research on invertebrate fauna and pedology. The littoral and sub-littoral, particularly of the cove between the two promontories, could be used for comparative studies with the more perturbed marine environment associated with Palmer Station in Arthur Harbour.

(viii) Scientific sampling

Sampling the biota and soils should be the minimum required for the research programme, and should not cause undue disturbance to the environment particularly the closed stands of vascular plants.

(ix) Other restraints

Any long-term experiments left in situ should be checked regularly for maintenance, and all artefacts removed when they are no longer required. No refuse should be deposited within the Site, or at sea beyond the Site in a manner which may allow it to be washed ashore within the Site.


ANVERS
ISLAND
BISCOE
BAY
66° 48´S
Biscoe
Point
SSSI No. 20
66° 50´
Ice-free ground
0
1 km
63°50´
63°46´W

Site of Special Scientific Interest No. 21
Shores of Port Foster, Deception Island South Shetland Islands

Management Plan

(i) Description of Site

The Site includes 5 areas on the coast of Port Foster, Deception Island (lat. 62°55'S, long. 60°37'W).

Area A. From the west side of Entrance Point to the west side of Collins Point on the south side of Neptune's Bellows, and extending 500 m inland from the shore.

Area B. Mid Fumarole Bay, south-west of Wensleydale Point extending for 500 m along the shore, to the line of precipitous lava cliffs about 100 m inland.

Area C. The "island" created during the 1967 eruption in Telefon Bay, and including the low land, containing a lake, which presently joins the new "island" to the main island.

Area D. A strip 100 m wide extending from the high-water mark of the heated shoreline of Pendulum Cove inland to a series of gullies about 750 m inland. The area lies about 300 m south of the former Chilean station Pedro Aguirre Cerda.

Area E. Kroner Lake including the land within 50 m of its shore. The boundaries of these areas of the Site are shown on the attached map.

(ii) Reason for designation

Deception Island is exceptional because of its volcanic activity, having had major eruptions in 1967, 1969 and 1970. Parts of the island were completely destroyed, new areas were created, others covered by varying depths of ash. Few areas of the interior were unaffected. The island offers unique opportunities to study colonization processes in an Antarctic environment (the South Sandwich Islands and Bouvetøya are at a more advanced stage of colonization while Mt Erebus and Mt Melbourne are at considerable altitude and the biota are restricted to micro-organisms). Each of the areas has been selected for different reasons:

Area A contains stands of closed vegetation buried by shallow ash but which have regenerated as isolated colonies. The beach area was occupied in summer 1981 by about 200 fur seals.

Area B was unaffected by the three eruptions and contains the most diverse flora on the island, including a few endemic and rare mosses and lichens.

Area C provides an entirely new substrate of known age, the colonization of which has been studied since its creation.

Area D includes two areas of heated ground - on the beach close to the shore and inland in a gully - where unique bryophyte communities have developed containing several species not known elsewhere in the Antarctic.

Area E is a small shallow crater lake with geothermal activity, the water and shore being warm to hot and the benthos colonized by various thermophilic algae.

(iii) Outline of research

Several studies of the terrestrial and freshwater biota have been carried out before and after the eruptions, and changes in the biota and recolonization of new surfaces are being studied. These will continue but will also be extended to other areas of the island, while the succession of organisms associated with heated ground and the biota of the various types of lakes will be investigated in greater detail.

(iv) Date of expiry of designation

31 December 1995.

(v) Access points

No access points are stated.

(vi) Pedestrian and vehicular routes

Entry to the Areas should be limited to research scientists. Tourists should be excluded. No vehicles, including helicopters, should be used within any Area of the Site. Pedestrians should exercise great care when walking over the terrain which is loose and soft, where the substrate and vegetation are extremely vulnerable to damage by trampling.

(vii) Other kinds of scientific investigations which would not cause harmful interference

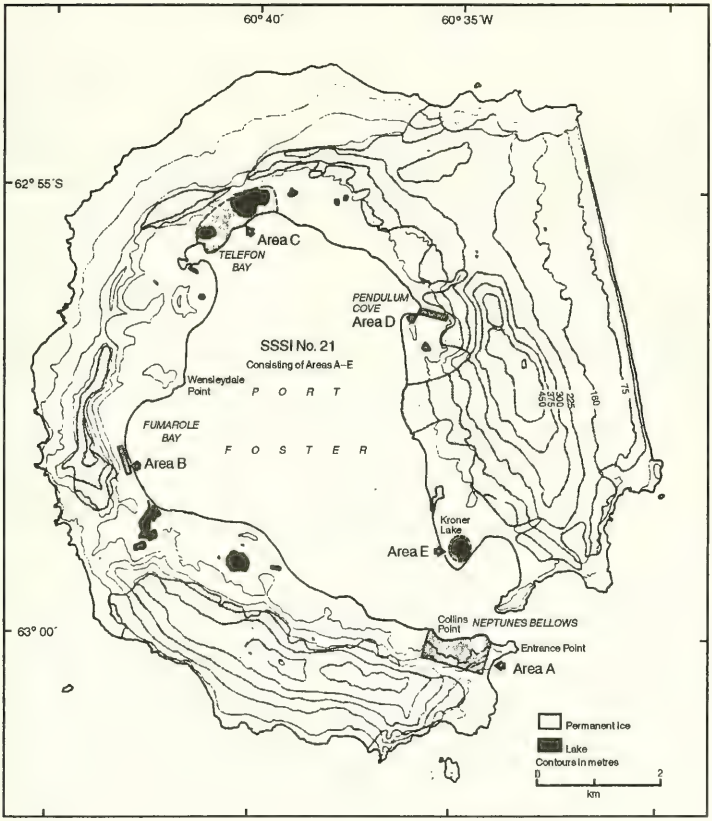
Other research which would not interfere with that outlined above may be carried out.

(viii) Scientific sampling

The collection of specimens should be the minimum required for the research being undertaken.

(ix) Other restraints

In order to minimize microbial and cryptogamic contamination of the substrat, the soles of footwear should be cleaned and disinfected (for example, by rinsing with alcohol) before entering the Areas.


60° 40´
60° 35´W
62° 55´S
63° 00´
Area C
TELEFON BAY
PENDULUM COVE
Area D
SSSI No. 21
Consisting of Areas A–E
Wensleydale Point
P O R T
F O S T E R
FUMAROLE BAY
Area B
Kroner Lake
Area E
Collins Point
NEPTUNES BELLOWS
Entrance Point
Area A
Permanent Ice
Lake
Contours in metres
0
2
km

XIII-9

FACILITATION OF SCIENTIFIC RESEARCH : SITES OF SPECIAL SCIENTIFIC INTEREST : INTERIM GUIDELINES : SSSI No. 1 : CAPE ROYDS, ROSS-ISLAND : AMENDMENT TO MANAGEMENT PLAN

The Representatives,

Recalling Recommendation VIII-4 and the Management Plan for Site of Special Scientific Interest N° 1 : Cape Royds, Ross Island annexed thereto;

Noting that at its Eighteenth Meeting the Scientific Committee on Antarctic Research (SCAR) held at Bremerhaven in September 1984 reviewed the management plans of the eight Sites of Special Scientific Interest designated in Recommendations VIII-4 and X-5 and that it proposed an amended management plan for SSSI N° 1 : Cape Royds, Ross Island;

Recommend to their Governments that :

1. The management plan for Site of Special Scientific Interest N° 1 : Cape Royds, Ross Island annexed to Recommendation VIII-4 be terminated;

2. They voluntarily take account of the management plan, annexed to this Recommendation, for site N° 1 : Cape Royds, Ross Island.

ANNEX

ANNEX

SITE OF SPECIAL SCIENTIFIC INTEREST NO 1
CAPE ROYDS, ROSS ISLAND

MANAGEMENT PLAN

(i) Description of Site

Cape Royds is situated at the western extremity of Ross Island, McMurdo Sound (lat. 77°33'S, long, 166°08'E), about 37 km north-north-west of McMurdo Station. The Site consists of all that area of Cape Royds west of a line drawn from the south coast of the Cape through Flagstaff Hill to the south-eastern tip of Pony Lake, and the west shoreline of this lake; and south of a line drawn from the western extremity of Pony Lake 280° True to the coast; including the littoral and sublittoral zones from Derrick Point on the east side of Arrival Bay about 4 km northwards to Rocky Point to the north of Horseshoe Bay, extending 500m. offshore from highwater mark. The boundaries of the Site are shown on the attached map.

(ii) Reason for designation

The structure and dynamics of the Cape Royds ecosystem, and the relationship with the penguin rookery are the subjects of scientific research. The research area and the main seaward access by Adelie penguins to the rookery should be protected by the creation of a reserve. The coastline of Cape Royds is an important feeding ground for Adelie penguins. The coast between Flagstaff Point and Green Lake is the main access route for birds travelling to and from the rookery. Proposed future research on the Cape Royds coastline incorporates further research on the dynamics of the Cape Royds inshore marine ecosystem. The Cape Royds penguin rookery and historic site provide an attraction for sightseers from the nearby station complexes at Scott Base and McMurdo. Regular visits are made to the area by tourists from vessels which sail into McMurdo Sound. The Site will help control any possible impact from these activities in the future.

(iii) Outline of research

The coastal area of Cape Royds is the site of continuing New Zealand research studies on Nototheniid fish population structure and dynamics. These studies, which began in 1981, involve the capture, measurement, tagging and release of Trematomus bernacchii. The Adelie penguin rookery population at Cape Royds has been continuously monitored since 1965, and these studies will also continue.

(iv) Date of expiry of designation

31 December 1995.

(v) Access points

The Site should not be entered during the period of penguin occupation (approximately mid-October to mid-March) except by the marked tracks. Only scientists engaged in the scientific studies should approach the penguin colonies at this period. Photographs of the colonies, except for scientific purposes, should be taken from the boundaries of the Site. Access points to the seaward portions of the Site are unrestricted. Boat access from tourist ships or casual visitors should be via the northernmost cove in Backdoor Bay.

(vi) Pedestrian and vehicular routes

No vessels, vehicles or helicopters of any description should enter the Site except in event of emergency. Pedestrians should keep to the marked tracks and not move through areas populated by penguins, except as necessary in the course of scientific investigations.

(vii) Other kinds of scientific investigations which would not cause harmful interference

None specified.

(viii) Scientific sampling

This should be restricted to the minimum required in connection with the research programme.

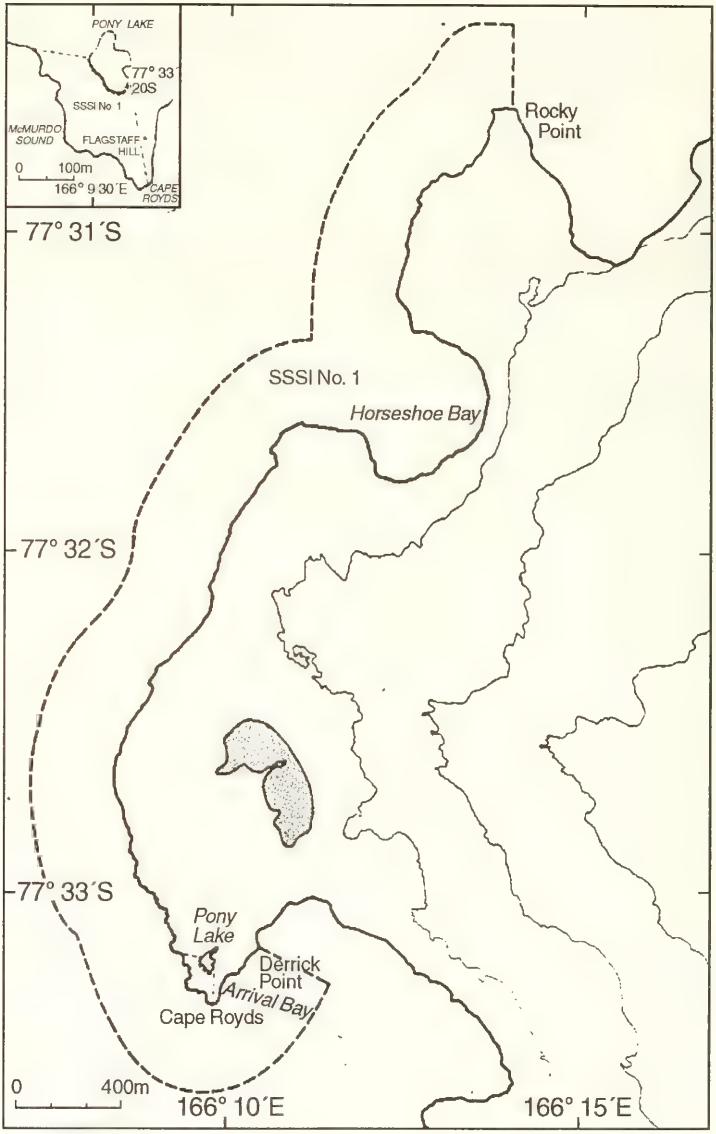
(ix) Other restraints

Any activity which would detract from the scientific research for which the area has been designated should be avoided. In particular, the following activities should be avoided :

1. Landscaping and removing surface material;

2. Construction of huts and buildings; and

3. Depositing of any pieces of equipment or material that would in any way hinder re-occupation of nests by penguins.


PONY LAKE
77° 33' 20S
SSSI No 1
McMURDO SOUND
FLAGSTAFF HILL
0 100m
166° 9 30 E
CAPE ROYDS
77° 31´S
Rocky Point
SSSI No. 1
Horseshoe Bay
77° 32´S
77° 33´S
Pony Lake
Derrick Point
Arrival Bay
Cape Royds
0 400m
166° 10´E
166° 15´E

XIII-10

SPECIALLY PROTECTED AREAS : NORTH CORONATION ISLAND, SOUTH ORKNEY ISLANDS

The Representatives,

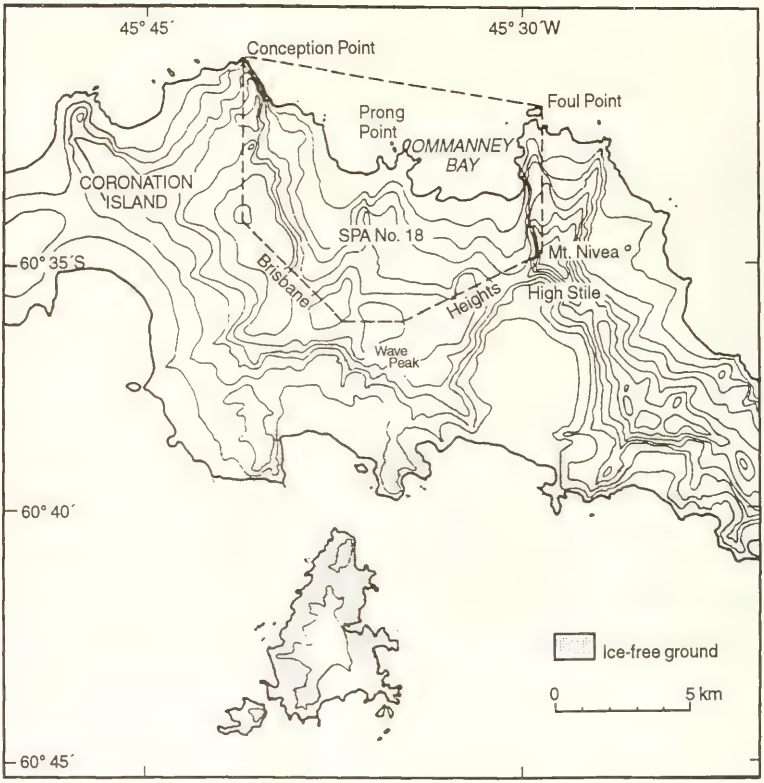
Considering that the area bounded by Foul Point and Conception Point on the north coast of Coronation Island, South Orkney Islands, extending southwards to Wave Peak and comprising Ommaney Bay and the bay between Prong Point and Conception Point embraces areas of coastal ice-free terrain (Conception, Prong and Foul Points) with large seabird colonies and lichen-dominated cliffs, and permanent ice rising to the Brisbane Heights plateau which provides an excellent representative area of a pristine ice environment near the northern limit of the maritime Antarctic and the Antarctic Treaty area, and that the interrelated terrestrial, permanent ice and marine components of this area comprise an integrated example of the coastal, permanent ice and sublittoral ecosystems typical of the maritime Antarctic environment;

Recommend to their Governments that the following area of outstanding scientific interest be inserted in Annex B, Specially Protected Areas, of the Agreed Measures for the Conservation of Antarctic Fauna and Flora :

Specially Protected Area No. 18

North Coronation Island, South Orkney Islands. Between Lat. 60°31′S., Long. 45°41′W. and Lat. 60°37′S., Long. 45°36′W. and Lat. 60°32′S., Long. 45°29′W.

DESCRIPTION : The area lies on the central north side of Coronation Island, South Orkney Islands. It is bounded to the east by Foul Point (lat. 60°32′S, long. 45°29′W) and to the west by Conception Point (60°31′S, 45°41′W); the entire area of these points is included in the area. The eastern boundary follows a precipitous ridge 6 km southwards to a position at 2500 ft (750m) altitude immediately to the west of Mt Nivea summit (60°35′S, 45°29′W), thence west-south-westwards for 5,5 km to a position at 3000 ft (900 m) altitude to the north-east of Wave Peak summit (60°37′S, 45°36′W), and from there 2 km westwards across the Brisbane Heights plateau then 5 km north-west to an unnamed summit at 3532 ft (1060 m) and north for 6 km to Conception Point. The summits of Mt Nivea and Wave Peak and the col known as High Stile are outside the area. Ommaney Bay and the unnamed bay to the west are included within the area south of the boundary between Conception and Prong Points (11.5 km). The area is shown on the attached map.


45° 45´
45° 30´W
Conception Point
Foul Point
Prong Point
COMMANNEY BAY
CORONATION ISLAND
SPA No. 18
Mt. Nivea
60° 35´S
Brisbane
Heights
High Stile
Wave Peak
60° 40´
Ice-free ground
0
5 km
60° 45´

XIII-11

SPECIALLY PROTECTED AREAS : LAGOTELLERIE ISLAND, MARGUERITE BAY

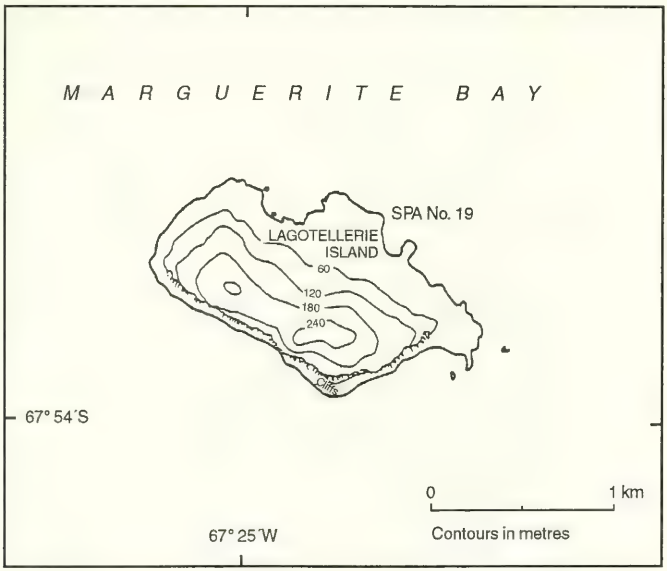
The Representatives,

Considering that Lagotellerie Island contains a relatively diverse flora typical of the southern Antarctic Peninsula region; that of particular interest is the abundance of the only two Antarctic flowering plants (Deschampsia antarctica and Colobanthus quitensis) which form closed stands up to 10 m2; that these are amongst the largest stands known south of the South Shetland Islands, being only 90 km north of their southern limit; that here both species flower profusely and the seeds have a greater viability than those produced in the South Orkney and South Shetland Islands; that numerous mosses and lichens also form well developed communities on the island; that a few of the mosses are fertile, a rare phenomenon in most Antarctic localities; that the invertebrate fauna is rich and that the island is one of the southernmost sites for the apterous midge Belgica antarctica; that the shallow loamy soil developed beneath these swards and its associated invertebrate fauna and microbiota are probably unique at this latitude; that there is a colony of abouth 1000 Adelie penguins (Pygoscelis antarctica) and one of the farthest south colonies of a few dozen blue eyed cormorants (Phalacrocorax atriceps) at the south-east corner of the island and that numerous pairs of brown and south polar skuas (Catharacta lonnbergii and C. maccormicki) breed on the island;

Recommend to their Governments that the following area of outstanding scientific interest be inserted in Annex B, Specially Protected Areas, of the Agreed Measures for the Conservation of Antarctic Fauna and Flora :

Specially Protected Area No. 19
Lagotellerie Island, Marguerite Bay
Lat. 67°53′S., Long 67°24′W.

DESCRIPTION : The area consists of Lagotellerie Island which lies about 3 km west of the southern part of Horseshoe Island, Marguerite Bay, south-west Antarctic Peninsula. The area is shown on the attached map.



XIII-12

SPECIALLY PROTECTED AREAS : "NEW COLLEGE VALLEY", CAUGHLEY BEACH, CAPE BIRD, ROSS ISLAND

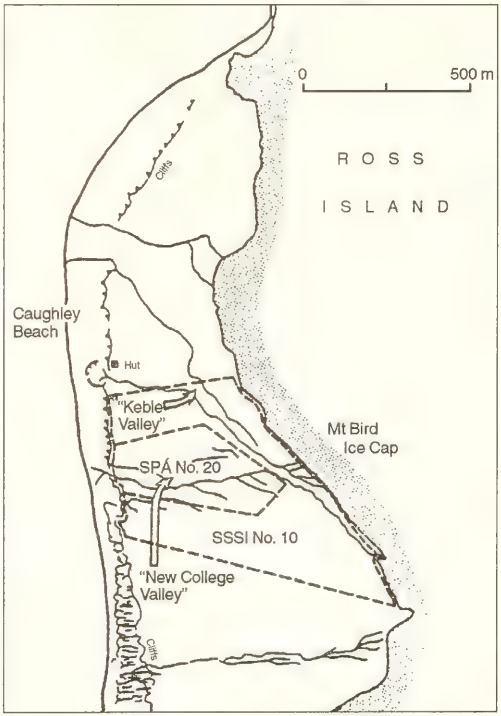
The Representatives,

Considering that the area contains some of the most luxuriant stands of vegetation (algae, mosses and lichens) and associated microflora in the Ross Sea sector of Antarctica; that because of the susceptibility of the cryptogamic vegetation to damage from trampling, the designation of the area provides protection for its biota, so that the area may serve as a conservation reserve representative of the adjacent Site of Special Scientific Interest nº 10;

Recommend to their Governments that the following area of outstanding scientific interest be inserted in Annex B, Specially Protected Areas, of the Agreed Measures for the Conservation of Antarctic Flora and Fauna :

Specially Protected Area No. 20
"New College Valley", Caughley Beach, Cape Bird, Ross Island
Lat. 77°14′S., Long. 166°23′E.

DESCRIPTION : The area consists of the ice free terrain lying between the cliff top above Caughley Beach and about 100 m east of the Mt Bird Ice Cap, and between a line south of the main stream bed of "Keble Valley" and the south ridge of "New College Valley". It is surrounded on three sides by Site of Special Scientific Interest nº 10. The area is shown on the attached map.



XIII-13

SPECIALLY PROTECTED AREA No. 7 : CAPE HALLETT, VICTORIA LAND : EXTENSION OF BOUNDARIES

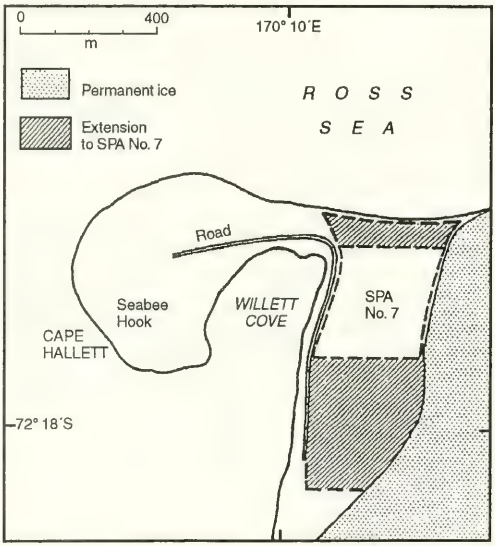
The Representatives,

Recalling Recommendation IV-7 in accordance with which an area between the eastern side of the road, which runs along the eastern side of Willett Cove, and the western margin of the permanent ice sheet, to the south of a line from the road to the margin of the permanent ice sheet at the latitude of the head of Willett Cove, and to the north of a line from the road to the margin of the permanent ice sheet drawn 350 metres to the south of that latitude and parallel to it, was designated for insertion in Annex B, Specially Protected Areas, of the Agreed Measures for the Protection of Antarctic Fauna and Flora on the grounds that Cape Hallett includes a small patch of particularly rich and diverse vegetation which supports a variety of terrestrial fauna and that the ecosystem, which includes a rich avifauna, is of outstanding scientific interest;

Considering that in recent years rich areas of vegetation have developed immediately outside the existing boundaries of the area; that to the south is a particularly dense and extensive stand of moss below a large permanent snow patch on the talus slope below the north end of the ice-fall; that the main moss stand is 35 m across but plants are widely scattered on ridges and gulleys throughout the area; that to the north, rock outcrops and stable scree support extensive stands of dense lichen growth (especially Xanthoria) and mosses, that algae (Prasiola) are also present, and that these are some of the richest stands of vegetation in Victoria Land;

Recommend to their Governments that the Description of Specially Protected Area nº 7, Cape Hallett, Victoria Land, inserted in Annex B, Specially Protected Areas, of the Agreed Measures for the Conservation of Antarctic Fauna and Flora be amended as follows :

DESCRIPTION : The area comprising a roughly rectangular block lies south of the northern coast of Cape Hallett between the road, which runs along the eastern side of Willett Cove and the western margin of the permanent ice sheet and to the north of an E-W line from a projection of the line of the road southward to a point 200 m south of latitude 72°18′S to the margin of the permanent ice sheet. The original area and the revised boundaries are shown on the attached map.



XIII-14

SPECIALLY PROTECTED AREAS : INTERIM GUIDELINES

The Representatives recommend to their Governments that, until such time as Recommendations XIII-10 to XIII-13 may become effective in accordance with Article IX of the Antarctic Treaty, they should as far as feasible consider these Recommendations as guidelines.

XIII-15

MATTERS RELATING TO THE APPOINTMENT OF OBSERVERS AT CONSULTATIVE MEETINGS

The Representatives,

Taking note of Article IX of the Antarctic Treaty;

Noting also that all Contracting Parties to the Antarctic Treaty have rights and obligations under the Treaty and are, as Parties, bound to carry out its provisions and uphold its purposes and principles, and to maintain and strengthen that Treaty;

Recalling that the non-Consultative Parties to the Antarctic Treaty were invited to attend the twelfth and thirteenth Consultative Meetings, as well as the Preparatory Meeting for the thirteenth Consultative Meeting;

Noting that accordingly the Rules of Procedure have been appropriately amended;

Recognizing the valuable contribution made to the deliberations of the twelfth and thirteenth Consultative Meetings by the representatives of the non-Consultative Parties;

Recommend to their Governments that the Government of the host country of each future regular Consultative Meeting invite non-Consultative Parties to appoint representatives to attend the Meeting, and any associated Preparatory Meeting, in accordance with the relevant provisions of the Rules of Procedure.

XIII-16

HISTORIC SITES AND MONUMENTS

The Representatives,

Recalling Recommendations I-IX, V-4, VI-14, VII-9 and XII-7;

Recommend to their Governments that the following historic monuments be added to the "List of Historic Monuments Identified and Described by the Proposing Government or Governments" annexed to Recommendation VII-9 and that thereafter they be accorded the respect and protection required by the Recommendations recalled above :

45. Plaque on Brabant Island, on Metchnikoff Point, lat. 64°02′S, long. 62°34′W. mounted at a height of 70 m on the crest of the moraine separating this point from the glacier and bearing the following inscription : "This monument was built by François de Gelache and other members of the joint services expedition 1983-85 to commemorate the first landing on Brabant Island by the Belgian Antarctic expedition 1897-99 :

Adrien de Gerlache (Belgium) leader
Roald Amundsen (Norway)
Henryk Arctowski (Poland)
Frederick Cook (U.S.A.)
and Emile Danco (Belgium)
camped nearby from 30 January to 6 February 1898".

46. All the buildings and installations of Port Martin base - Terre Adélie (lat. 66°49′S), long. 141°24′E) constructed in 1950 by the 3rd French expedition in Terre Adélie and partly destroyed by fire during the night of 23 to 24 January 1952.

47. Wooden building called "Base Marret" on the Ile des Pétrels off Terre Adélie (lat. 66°40′S, long. 140°01′E) where seven men under the command of Mario MARRET overwintered in 1952 following the fire at Port Martin base.

48. Cross erected on the North-East headland of the Ile des Pétrels - Terre Adélie (lat. 66°40′S, long. 140°01′E) in memory of André PRUDHOMME, head meteorologist in the 3rd International Geophysical Year expedition who disappeared during a storm on 7 January 1959.

49. The concrete pillar erected by the First Polish Antarctic Expedition at Dobrolowski station on the Bunger Hill to measure acceleration due to gravity g = 982,439.4 mgal ± 0.4 mgal in relation to Warsaw, according to the Potsdam system, in January 1959 (lat. 66°16.3′S, long. 100°45′E, h = 35.4m).

50. A brass plaque bearing the national emblem of Poland, the Polish eagle, the dates 1975 and 1976, and the following text in Polish, English and Russian : "In memory of the landing of members of the first Polish Antarctic marine research expedition on the vessels "Profesor Siedlecki" and "Tazar" in February 1976". This plaque, south-west of of the Chilean and Soviet stations, is mounted on a cliff facing Maxwell Bay, Fildes Peninsula, King George Island.

51. The grave of Wladzimierz Puchalski, surmounted by an iron cross, on a hill to the south of Arctowski station on King George Island. W. Puchalski, was an artist, a producer of documentary nature films, who died on 19 January 1979 whilst working at the station.

52. Monolith erected to commemorate the establishment on 20 February 1985 by the People's Republic of China of the "Great Wall Station" (lat. 62°13′S, long. 58°58′W) on Fildes Peninsula, King George Island, in the South Shetland Islands. Engraved on the monolith is the following inscription in Chinese : "Great Wall Station, First Chinese Antarctic Research Expedition, 20 February 1985".

Measures Approved or Recommended Under Article IX in Furtherance of Principles and Objectives of the Antarctic Treaty, Rio de Janeiro, 1987

Adopted at Rio de Janeiro 16 October 1987

Not in effect

Primary source citation: Antarctic Treaty: Report of the Fourteenth Consultative Meeting, Federative Republic of Brazil, Ministry of External Affairs, Rio de Janeiro, Brazil, 1988

RECOMMENDATIONS ADOPTED AT THE FOURTEENTH ANTARCTIC TREATY CONSULTATIVE MEETING

XIV-1

OPERATION OF THE ANTARCTIC TREATY SYSTEM: PUBLIC AVAILABILITY OF THE DOCUMENTS OF CONSULTATIVE MEETINGS

The Representatives,

Conscious of the value of increasing public knowledge of the achievements and operation of the Antarctic Treaty System;

Noting operative paragraph 4 of Recommendation XII-6, subparagraph (c) of which is no longer relevant;

Desiring to modify subparagraphs (a) and (b) of the said operative paragraph 4, which deal with the handling of Information Documents;

Recommend to their Governments that operative paragraph 4 of Recommendation XII-6 be replaced by the following:

> "4. Starting with the XVth Consultative Meeting, Delegations should indicate, when submitting an Information Document, if they intend that document not to be made public. In the absence of such an indication, the Document will be publicly available as from the closure of the Meeting at which it was submitted."

XIV-2

HUMAN IMPACT ON THE ANTARCTIC ENVIRONMENT: ENVIRONMENTAL IMPACT ASSESSMENT

The Representatives,

Recalling:

(i) Article II of the Antarctic Treaty, Recommendations IV-4, VIII-11, VIII-13, IX-5 and XII-3;

(ii) the work of SCAR with respect to the elaboration of procedures for evaluating impacts from scientific and logistic activities;

(iii) the United Nations Environment Program (UNEP) "Goals and Principles of Environmental Impact Assessment" adopted by the UNEP Governing Council at its Fourteenth Session (June 1987);

Reaffirming that, before decisions are taken by their respective national organizations responsible for Antarctic activities to undertake scientific research or associated logistic activities that are likely significantly to affect the Antarctic environment, the environmental effects of such activities should be identified so that such effects may be carefully weighted against the advantages that are expected to be derived from the activity in question;

Desiring:

(i) to promote the implementation by Consultative Parties of appropriate procedures consistent with national laws and decision-making processes, through which the foregoing goal may be realized;

(ii) to encourage the development of reciprocal procedures for information exchange and comment between Parties when proposed activities are likely to have significant effects on the Antarctic environment;

(iii) to introduce a measure of comparability between environmental impact assessment procedures for use with respect to the scientific research and associated logistic activities of Consultative Parties;

(iv) to ensure that in the implementation of such procedures due account is taken of, inter alia, the cumulative impact such activities may have in the Antarctic environment and of their possible impact on other uses of Antarctica and on dependent and related ecosystems;

Recommend to their Governments that:

1. In the planning process leading to decisions about scientific research programmes and their associated logistic support facilities, their respective national Antarctic organizations responsible for Antarctic activities evaluate the environmental impact of such activities in accordance with the procedural guidelines set out below:

GUIDELINES

(i) The proposed activity should be defined and described; such description to include information on the needs to be met by the proposed activity and features of the activity that might cause impacts on the environment;

(ii) A first evaluation, termed an "Initial Environmental Evaluation", should be performed to determine whether the activity might reasonably be expected to have a significant impact;

(iii) If this Initial Environmental Evaluation indicates that the proposed activity is likely to have no more than a minor or transitory effect on the environment, the activity may proceed, with the proviso that appropriate monitoring of the actual impact should take place;

(iv) Otherwise, a "Comprehensive Environmental Evaluation" should be prepared;

(v) Such a Comprehensive Environmental Evaluation should include:

(a) descriptions of the proposed activity and feasible alternatives, including the alternative of not proceeding, and their respective consequences on Antarctic research;

(b) a description of the initial environmental reference state with which predicted changes are to be compared and a prediction of the future environmental state in the absence of the proposed activity;

(c) estimation of the nature, extent, duration and intensity of the likely direct environmental effects resulting from the proposed activity;

(d) consideration of possible indirect or second order effects;

(e) consideration of cumulative impacts of the proposed activity in the light of existing activities and other known planned activities;

(f) identification of measures, including monitoring programmes, that could be taken to minimize or mitigate impacts and detect possible unforeseen effects;

(g) identification of unavoidable impacts;

(h) evaluation of the significance of the predicted environmental effects in relation to the advantages of the proposed activity;

(vi) On the basis of the Comprehensive Environmental Evaluation, a decision would be made by the appropriate national authority whether the activity should proceed and, if so, in its original or in a modified form;

(vii) Key indicators of the environmental effects of the activity should be monitored and, where possible, environmental impacts should, as in all Antarctic activities, be minimized or mitigated.

2. In the process of preparing a Comprehensive Environmental Evaluation, Parties concerned shall be informed, and be given the opportunity to comment, either directly or through their national contact points.

3. Final Comprehensive Environmental Evaluations shall be transmitted as part of the annual exchange of information provided for under the Antarctic Treaty.

XIV-3

HUMAN IMPACT ON THE ANTARCTIC ENVIRONMENT: SAFEGUARDS FOR SCIENTIFIC DRILLING

The Representatives,

Recalling Article II of the Antarctic Treaty and Recommendations VIII-13, IX-5, X-7 and XII-3;

Recognizing the knowledge of the tectonic, geochemical and climatic evolution of the Antarctic region that can be obtained from Scientific Drilling;

Bearing in mind the potential risk to the Antarctic environment in cases where such drilling could result in hydrocarbons being released into the Antarctic environment;

Conscious of the need for adequate preparation and planning of such drilling to ensure the best possible scientific results and protection of the Antarctic environment;

Conscious also that planning such drilling will require preparation of a Comprehensive Environmental Evaluation as provided for in Recommendation XIV-2;

Recommend to their Governments that they adopt and use the following Guidelines to assist in evaluating and avoiding the potential risk for significant adverse environmental impacts resulting from such drilling:

Guidelines for Scientific Drilling in the Antarctic Treaty Area

i) Before undertaking any scientific drilling that may have significant adverse environmental effects, adequately detailed geophysical surveys shall be performed of the sites in question to enable any potential hazard associated with any specific drill site within the area of interest to be evaluated along with any other information available about that particular site.

ii) All feasible precautions shall be taken to locate such drill sites offstructure to reduce the possibility of encountering hydrocarbons.

iii) Such planned drill sites and operational drilling plans, including the geophysical survey results and other information, shall be reviewed by a body of appropriate experts to identify potential hazards and to assess the potential risk to the environment resulting from the proposed drilling and how those risks can be minimized.

iv) If any significant potential hazard is identified which cannot be avoided by modifying the planned drilling procedure or equipment, the location of the proposed drill site shall be abandoned and any recommendations of the reviewing body shall be considered in connection with the choice of an alternative site.

v) Contingency plans shall be prepared to deal with any problems that may develop during the drilling process.

vi) The drilling process shall be continuously monitored for potential hazards and necessary action shall be taken if problems occur.

vii) Notification shall be provided to the responsible national agency by those conducting drilling operations of all hazards encountered, including the location of the site at which they were identified, and a description of the actions taken.

XIV-4

FACILITATION OF SCIENTIFIC RESEARCH: SITES OF SPECIAL SCIENTIFIC INTEREST: INTERIM GUIDELINES: EXTENSION OF DESIGNATION.

The Representatives,

Recalling Recommendations VIII-3, VIII-4, X-6, XII-5 and XIII-7;

Noting that:

(i) in accordance with paragraph 2 of Recommendation VIII-3 the Scientific Committee on Antarctic Research (SCAR) at its Nineteenth Meeting at San Diego, USA in June 1986, had reviewed the Site of Special Scientific Interest Nº 2 and had noted the importance of protecting this site from man-made electromagnetic interference over a range of frequencies from 10^{-2} Hz to 10^{8} Hz in view of the value of the site for the study of natural electromagnetic phenomena of relevance to ionospheric and magnetospheric physics;

(ii) experience of the practical effect of the management plan for the site had shown it to be an effective means of reducing the risks of harmful interference with the scientific research being undertaken in it;

(iii) no change to the management plan had been proposed by SCAR;

Recommend to their Governments that:

1. The date of expiry of designation of Site Number 2 be extended from 31 December 1987 to 31 December 1997.

2. They use their best endeavours to ensure, in accordance with paragraphs 3 and 4 of Recommendation VIII-3 that the management plan for this site is observed.

XIV-5

FACILITATION OF SCIENTIFIC RESEARCH: SITES OF SPECIAL SCIENTIFIC INTEREST: INTERIM GUIDELINES: ADDITIONAL SITES.

The Representatives,

Recalling Recommendations VIII-3 and VIII-4;

Noting that management plans have been prepared and approved by the Scientific Committee on Antarctic Research (SCAR) for certain Sites of Special Scientific Interest additional to those already designated;

Considering that it would be advantageous to gather experience of the practical effect of the management plans prepared for these Sites;

Recommend to their Governments that they voluntarily take account of the management plans, annexed to this Recommendation for the following Sites:

Site Nº 22: Yukidori Valley, Langhovde, Lutzow-Holm Bay.

Site Nº 23: Svarthamaren, Mühlig-Hofmannfjella, Dronning Maud Land.

Site Nº 24: Summit of Mt Melbourne, North Victoria Land.

Site Nº 25: Marine Plain, Mule Peninsula, Vestfold Hills, Princess Elizabeth Land.

Site Nº 26: Chile Bay (Discovery Bay), Greenwich Islands, South Shetland Islands.

Site Nº 27: Port Foster, Deception Island, South Shetland Islands.

Site Nº 28: South Bay, Doumer Island, Palmer Archipelago.

ANNEX

SITE OF SPECIAL SCIENTIFIC INTEREST Nº 22

YUKIDORI VALLEY, LANGHOVDE, LUTZOW-HOLM BAY

Management Plan

(i) Description of Site
Physical Features

Yukidori Valley (lat. 69°14′30″ S, long. 39°46′00″ E), is situated in the middle part of Langhovde, on the east coast of Lutzow-Holm Bay, Greater Antarctica.

The site encompasses an area of 3 km by 0.5-1.5 km, located between a tongue of the ice cap and the sea at the western end of the valley; it extends up to 50 m offshore near the mouth of the stream. The location of the site and its boundaries are shown on the attached maps.

Topography. The valley is about 3 km in length from east to west and 0.5 to 1.5 km in width and contains a prominent melt stream and two lakes; the head of the valley, about 200 m above sea level, abuts the edge of the ice cap. Lake Higashi Yukidori lies north of the head of the valley. The stream flows from the ice cap towards the sea through V-shaped and U-shaped sectors of the valley and enters Lake Yukidori, in the middle of the valley, 125 m above sea level; it then flows from the south-west corner of the lake and runs through the lower valley formed by steep cliffs. Fluvioglacial terraces in the lower part of the valley consist of fine sand and gravel. There is a dissected deltaic fan formed at the mouth of the stream.

Geology and soils. The valley is underlain by well-layered sequences of late Proterozoic metamorphic rocks, consisting of garnet-biotite gneiss, biotite gneiss, pyroxene gneiss and hornblende gneiss with metabasite. The foliation of the gneisses strike N 10°E and dips monoclinally to the east.

Meteorology. A continuous climatic record has been maintained since 1957 at Syowa Station, Ongul Island, 30 km north of the site (published as "Antarctic Meteorological Data" by the Japan Meteorological Agency).

Biological Features

Terrestrial. Almost all of the plant species recorded from the Langhovde area occur within the site. They include the mosses Bryum pseudotriquetrum (= B. algens), B. argenteum, Ceratodon purpureus, Pottia heimii, Grimmia lawiana, and the lichens Usnea sphacelata (= U. sulphurea), Umbilicaria antarctica, U. decussata, Alectoria (= Pseudephebe) minuscula, Xanthoria elegans. There are no liverworts or vascular plants. Two species of free living mites (Nanorchestes antarcticus and Tydeus erebus) have been reported.

Inland waters. Sixty-four species of microalgae, including cyanobacteria and green algae, have been reported from Lake Yukidori and the adjacent area. Among them were one new species of Cosmarium (C. yukidoriense) and three new varieties of C. clepsydra.

Marine. No information

Birds and seals. Several pairs of the south polar skua (Catharacta maccormicki) and numerous snow petrels (Pagodroma nivea: Note "Yukidori" is Japanese for the snow petrel) breed in the site. The excrement of snow petrels is especially important as a major supply of nutrients for lichens and mosses. There is no information on seals.

(ii) Reason for designation

Yukidori Valley is representative of the typical continental Antarctic fellfield ecosystem. The area has been chosen for an on-going biological research programme and for long-term monitoring studies. It is therefore necessary to afford protection to the site so as to minimize human impacts. With more extensive expeditions in the ice-free areas, pedestrian traffic is increasing in the vicinity of the exceptional stands of vegetation. A biological research hut has been constructed near the beach at the mouth of the valley, 250 m from the western boundary of the site, for the purpose of minimizing impact on the fauna, flora and terrain of the site. Pedestrian access has been limited and no vehicular access has been permitted since the construction of the hut. The valley has not been subjected to any environmental disturbance, with the exception of carefully controlled small-scale biological sampling of lake water, soil, lichens, mosses, invertebrates and sea birds.

(iii) Outline of research

Field surveys of geoscience and biological science have been carried out in the Langhovde area, including the site, since the first Japanese Antarctic Research Expedition in 1957.

A preliminary biological survey of the site was made during JARE 15 and 16 (1973-75). This survey obtained information on the pristine state of the terrestrial ecosystem to compare with that influenced by man around Syowa Station on East Ongul Island. The studies were mainly undertaken in summer, and terminated after two seasons. A three year intensive study of the ecosystem commenced during the 1985-86 season. The present programme is planned to gain a deeper understanding of the terrestrial ecosystems in this site; it consists of several ecological studies on fauna and flora in relation to the climatic and edaphic environmental conditions. Long-term monitoring of fauna and flora in some selected areas has been conducted from the early stages of the investigation and will be continued.

(iv) Date of expiry of designation

31 December 1992.

(v) Access points

None specified.

(vi) Pedestrian and vehicular routes

Pedestrians should enter the site only in connection with research activities. Surface vehicles should not be operated and helicopters should not land within the site.

(vii) Other kinds of scientific investigations which would not cause harmful interference

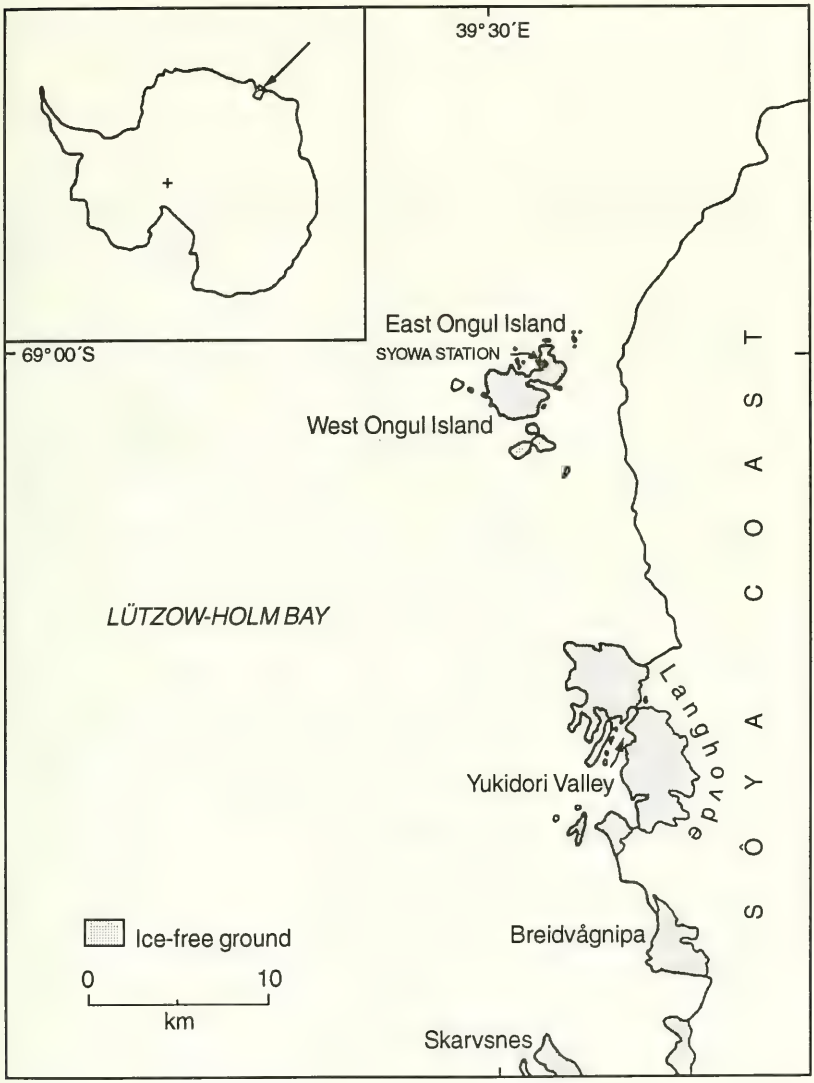
Research of other disciplines that would not affect the continuing biological studies for the protection of which the site has been designated.

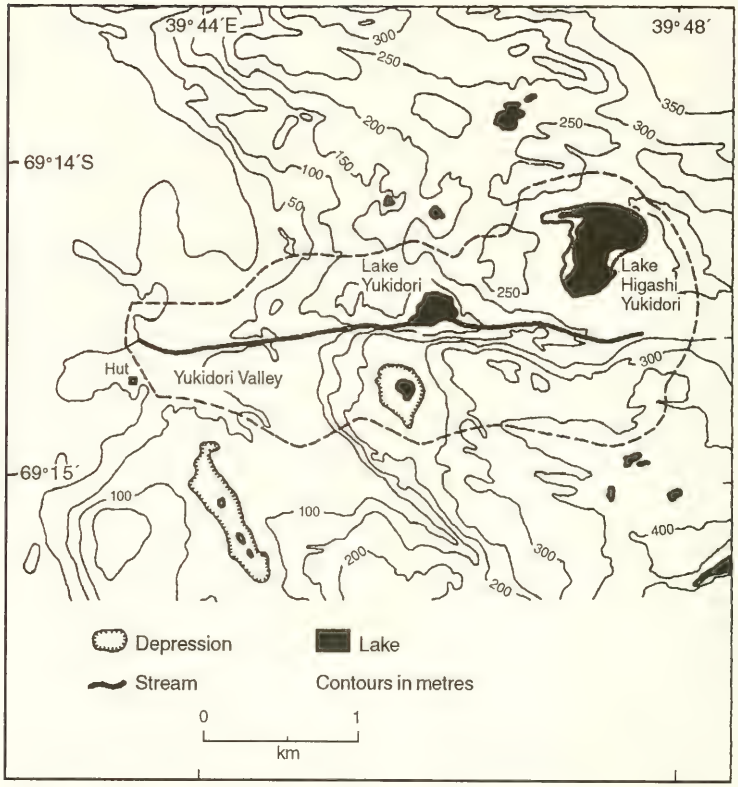
(viii) Scientific sampling

This should be restricted to the minimum required in connection with the programme. No rock samples may be obtained.

(ix) Other restraints

None specified.


39° 30′E
69° 00′S
East Ongul Island
SYOWA STATION
West Ongul Island
LÜTZOW-HOLM BAY
Langhovde
Yukidori Valley
Breidvågnipa
Skarvsnes
SÔYA COAST
Ice-free ground
0
10
km


39° 44´E
39° 48´
69° 14´S
69° 15´
300
250
200
150
100
50
350
Lake
Yukidori
Lake
Higashi
Yukidori
Hut
Yukidori Valley
400
Depression
Lake
Stream
Contours in metres
0
1
km

SITE OF SPECIAL SCIENTIFIC INTEREST Nº 23

SVARTHAMAREN, MÜHLIG-HOFMANNFJELLA, DRONNING MAUD LAND

Management Plan

(i) Description of Site
Physical Features

Svarthamaren is an ice free area (lat. 71°53′S, long. 5°10′E) situated in Mühlig-Hofmannfjella, Dronning Maud Land. The distance from the ice front is about 200 km. The site consists of about 3.9 km^2 of the north-eastern facing cliffs and screes north of the summit of Svarthamaren. The location of the site and its boundaries are shown in the attached maps.

Topography. Svarthamaren is surrounded by ice and is about 6 km long along a NW-SE axis, with the highest point at 2195 m a.s.l. The northern part of the NE side is dominated by screes (slope 31-34°), extending 240 m upwards from the base of the mountain at about 1600 m a.s.l. Above these screes are almost vertical cliffs. Beneath the screes is a narrow area of flat ground bordered by glacier ice. The major feature of this site are two rock amphitheatres inhabited by breeding Antarctic petrels.

Geology and soils. The main rock types are coarse and medium grained charnockitoids and small amount of zenoliths. Banded gneisses, biotite amphibolites and granites of the amphibolites facies mineralogy are included in the charnockitoids. The slopes are covered by decomposed feltspathic sand.

Meteorology. Data exist for the period 13 January to 15 February 1985 (prevalent air temperature ranged between –5°C and –15°C). An automatic weather station was set up by the Norwegian Antarctic Research Expedition 1984/85 in an analogous situation at Jutulsessen, 100 km west of Svarthamaren, to obtain long-term weather statistics.

Biological Features

Terrestrial. The flora and vegetation at Svarthamaren are sparse compared with other areas in Mühlig Hofmannfjella and Gjelsvikfjella to the west of the site. This is apparently due to the elevation of Svarthamaren, the shortage of meltwater, and the excessive nutrient deposition from the bird colonies. The only plant species occurring in abundance, but peripherally to the most manured areas, is the foliose green alga, Prasiola crispa. There are a few lichen species on glacier-borne erratics 1-2 km away from the bird colonies: Candelariella hallettensis (= C. antarctica), Rhizoplaca (= Lecanora) melanophthalma, Umbilicaria spp., and Xanthoria spp. Areas covered with Prasiola are inhabited by Collembola (Cryptopygus sverdrupi) and a rich fauna of mites (Eupodes angardi, Tydeus erebus), protozoans, nematodes and rotifers.

Inland waters. A shallow pond measuring about 20 × 30 m, lying below the middle and largest bird subcolony, is heavily polluted by petrel carcasses, and supports a strong growth of a yellowish-green unicellular algae, Chlamydomonas sp. Smaller concentrations of algae occur on the fringes of a small frozen lake below the northern face of the mountain. No invertebrates have been recorded.

Birds. There are important breeding colonies of seabirds. The north-east slopes of Svarthamaren are occupied by a densely populated colony of Antarctic petrels (Thalassoica antarctica), divided into three separate subcolonies. Less than ten breeding colonies of Antarctic petrels are described in the literature, and the Svarthamaren colony is by far the largest known. The colony was first closely examined in January/February 1985 by Norwegian ornithologists. The total number of breeding pairs was estimated to be 208,000. In addition, 500-1000 pairs of snow petrels (Pagodroma nivea) and 50 pairs of south polar skuas (Catharacta maccormicki) were breeding in the area. The Antarctic petrels nest in the two rocky amphitheatres with a mean density of 0.75 nest per square metre. Most of the snow petrels nest in separate parts of the scree characterized by larger rocks. The south polar skuas nest on the narrow strip of flat, snow-free ground below the screes.

(ii) Reason for designation

The Svarthamaren Antarctic petrel colony is the largest known seabird colony situated inland on the Antarctic continent, and probably represents a significant proportion of the world population of this species.

The site is of exceptional scientific interest and provides for research on the Antarctic petrel, snow petrel and south polar skua and the study of adaptations in seabirds breeding inland on the Antarctic continent.

(iii) Outline of research

A study of the breeding biology and ecophysiological adaptations in the Antarctic petrel was initiated in 1985. This is planned to continue during future Norwegian Antarctic Expeditions. The accessibility of the site is limited by its location far inland.

The Antarctic petrel colony was discovered by Soviet geologists in January 1961 when a party landed in the area with an AN-2 aircraft and unexpectedly encountered thousands of birds. During the period 9 January to 16 February 1985 ten of the scientists of the Norwegian Antarctic Research Expedition worked in Mühlig-Hofmannfjella and Gjelsvikfjella, and established a base camp (Camp Norway 5) on the glacier approximately 500 m north-east of the northernmost slope of the site.

Three ornithologists, a botanist and an invertebrate zoologist worked in the area and researchers of other discipline surveyed this and nearby areas. Helicopter landings during the period were kept to a minimum. A wooden laboratory hut has been left to be used by future parties.

(iv) Date of expiry of designation

31 December 1997.

(v) Access points

The site may be entered from any direction but access should cause minimum disturbance to the bird colonies.

(vi) Pedestrian and vehicular routes

Vehicles should not enter the Site. Pedestrians should not move through the populated areas except in the course of scientific investigations. Helicopters and low-flying aircraft should avoid the bird colonies in accordance with the Agreed Measures for the Conservation of Antarctic Fauna and Flora.

(vii) Other kinds of scientific investigations which will not cause harmful interference

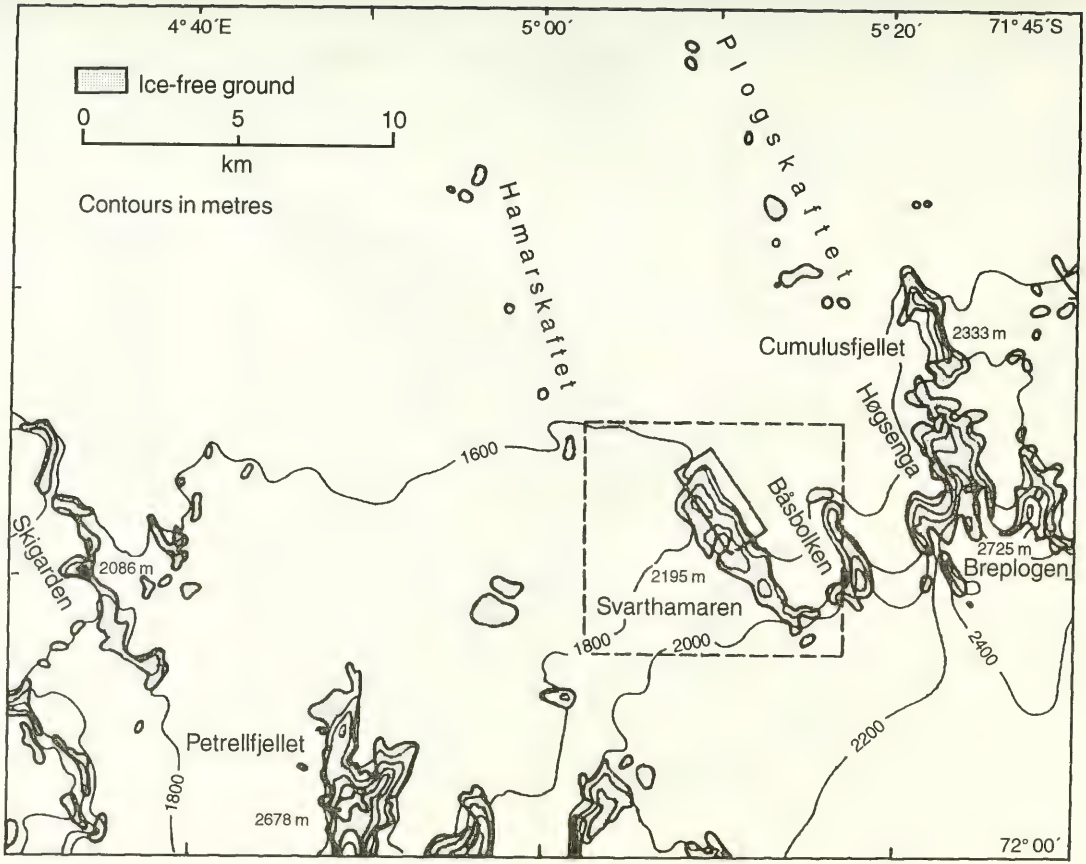
Any scientific investigation which will not cause significant disturbance to the biological programmes for which the site has been designated.

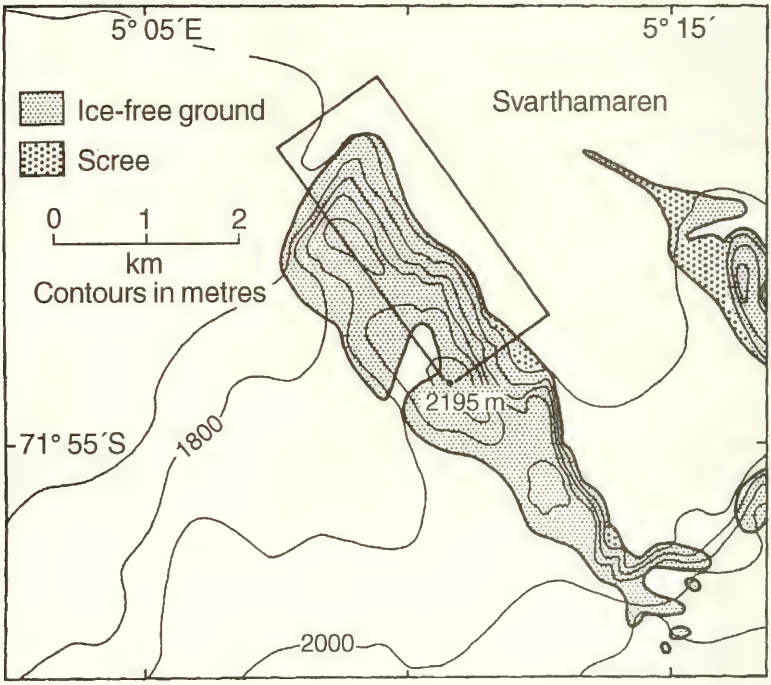
(viii) Scientific sampling

Taking samples of the bird population by killing, capture, or taking of eggs should be done only for a compelling scientific purpose and in accordance with the Agreed Measures for the Conservation of Antarctic Fauna and Flora.

(ix) Other restraints

None specified.


4° 40´E
5° 00´
5° 20´
71° 45´S
Ice-free ground
0
5
10
km
Contours in metres
Plogskaftet
Hamarskaftet
Cumulusfjellet
2333 m
Høgsenga
Båsbolken
2725 m
Breplogen
2195 m
Svarthamaren
Skigarden
2086 m
Petrellfjellet
2678 m
1600
1800
2000
2200
2400
72° 00´


5° 05´E
5° 15´
Ice-free ground
Scree
0 1 2
km
Contours in metres
Svarthamaren
2195 m
71° 55´S
1800
2000

SITE OF SPECIAL SCIENTIFIC INTEREST Nº 24

SUMMIT OF MT. MELBOURNE, NORTH VICTORIA LAND

Management Plan

(i) Description of Site
Physical Features

Mt. Melbourne, North Victoria Land (lat. 74°21'S, long. 164°42'E) is situated between Wood Bay and Terra Nova Bay, on the west side of Ross Sea, and Campbell Glacier, about 10 km to the west. The site comprises all terrain above the 2200 m contour surrounding the main crater of Mt. Melbourne. The location of the site and its main features are shown in the attached maps.

Topography. In profile, Mt. Melbourne is an almost perfect low-angle volcanic cone rising to 2732 m a.s.l., showing only slight dissection and little or no glacial erosion. Many smaller basaltic cones and mounds occur near the base and on the flanks of the mountain. The summit caldera is about 1 km in diameter and forms a neve for a glacier flowing westward. The two areas of ice-free steaming ground (at A - "Cryptogam Ridge" and B on the accompanying map) are on the edge of the caldera, with a third area (C) 250 m lower on the northern slopes. "Cryptogam Ridge", on the southern side of the main crater, is an area of geothermal activity. About 300-400 m of this ridge is ice-free with the remainder covered by numerous ice hummocks. These hummocks are hollow, contain fumaroles and are 1-6 m in diameter and up to 4 m high.

Geology and soils. Mt. Melbourne is part of the McMurdo Volcanics which are a line of dormant and extinct volcanoes running along the coast of Victoria Land. The Mt. Melbourne area is more likely to be late Quaternary than late Tertiary in age, and the most recent eruption may have been only about 150 years ago. The mountain is a large low-angle strato-volcano containing basalt, trachyandesite and trachyte flows and including pyroclastics. Small basalt scoria cones are scattered around the base, some of which appear to be very recent as they are undissected. Several older slightly dissected cones occur on the summit caldera.

Surface ground temperatures vary markedly over distances of centimetres on ice-free warm ground, up to a recorded maximum of 47°C. Random probing to depths of 1 m and detailed temperature transects to depths of 15 cm indicate substrate temperatures of up to 60°C. Within the ice pinnacles soil surface temperatures range from 10°C to over 40°C. Frost heave occurs at some warm areas.

Although the substratum is classified as azonal, there are two distinct soil zones within some areas of hot ground probably caused by heat, moisture and gases from below. A typical profile comprises an upper 0-5 cm layer of dark sandy soil with a lower 6-30 cm horizon consisting of large lighter coloured scoria gravels. The upper layer contains organic matter in which there is microbiological activity, including cyanophaecean nitrogen fixation. No clay minerals have been detected.

Meteorology. No detailed data are available for the site. Field party records, during one week in late November 1984, indicate summer air temperatures in the caldera area of –6°C to –20°C, with an absolute minimum of –32°C.

Biological Features

Terrestrial. The warmest areas of ground support patches of yellow-green moss, liverwort and brownish crusts of algae. The site contains an unique bryophyte community comprising the moss Campylopus pyriformis and the liverwort Cephaloziella exiliflora. C. pyriformis is not known elsewhere in the Antarctic biome, and C. exiliflora is known from only three other (low altitude) areas of continental Antarctica. Other than at a similar geothermal site at the summit of Mt. Erebus (protonemata only) this is the highest altitude at which bryophytes have been found in Antarctica. A single unidentified lichen has been observed as a component of black crusts over small areas of warm soil. The unusual occurrence of shallow peat is evidence of bryophyte growth having taken place over at least several decades.

Algar grow over wide areas of the warm ground and on the surface of warm rocks in some fumaroles. The microflora comprises a range of unicellular and filamentous algar, including the green Chroococcus sp. Tolypothrix sp. and Stigonema sp. and the cyanobacteria Mastigocladus

laminosus and Pseudococcomyxa simplex. Thermotolerant and thermophilic micro-organisms have been isolated from the soil. The only invertebrate reported is a testate amoeba, Corythion dubium, amongst the vegetation. The occurrence of plant life is made possible only by the water droplets formed by the condensation of steam. Very small 'pools' up to 50 cm^2 and about 1 cm deep have been observed on occasions where dripping condensate gathered in small depressions.

Birds. No observations of birds have been made near the summit of the volcano.

(ii) Reason for designation

The site is of exceptional scientific interest because of its extensive ice-free geothermal areas, at high altitude, supporting a unique cryptogamic flora and microbiota and accumulations of organic matter. The closest documented, high altitude fumarolic ground is 400 km to the south of the summit of Mt. Erebus (see SSSI Nº 11, Tramway Ridge Mt. Erebus), but there the organisms differ significantly from those on Mt. Melbourne. Elsewhere in Antarctica vegetation on steam-warmed ground is known only in low altitude maritime areas of the Antarctic Peninsula region where, again, the vegetation differs significantly from the Mt. Melbourne community. The site is scientifically significant for botanists, microbiologists, volcanologists and geophysics. Uncontrolled human activity within this area could cause severe damage by trampling of plants, compacting soil and altering soil temperature gradients, changing rates of steam release and possibly causing the introduction of alien micro-organisms and cryptogamic plants.

(iii) Outline of research

There has been little previous research activity in the site. The studies that have been undertaken have involved investigations of geothermal and volcanic activity and a survey of the plant and microbial communities. Future research is likely to include studies of soil microbiology and microfauna, vegetation, volcanology and the geophysics of the area.

Mt. Melbourne was first sighted in 1841 by James Ross and first climbed in January 1967 by a New Zealand party. Since then the summit area has been visited by New Zealand parties in December 1972 and November 1984. The 1984 party surveyed the biota on "Cryptogam Ridge". Brief visits were also made in January 1983 by a United States party and more recently by West German (1984/85) and Italian (1985/86) parties.

(iv) Date of expiry of designation

31 December 1997.

(v) Access Points

Access to the site is normally by helicopter and landings should be made only on the glacier ice in the caldera, thereby avoiding any of the vegetated or other sensitive areas.

(vi) Pedestrian and vehicular routes

No vehicle should be used within the site. Pedestrians should avoid, whenever possible, walking on any obvious areas of warm ground or disturbing any vegetation. Entry to the "Cryptogam Ridge" area of the site should be made only from either end of the ridge. Entering the ridge directly up its slopes should be avoided.

(vii) Other kinds of scientific investigations which would not cause harmful interference

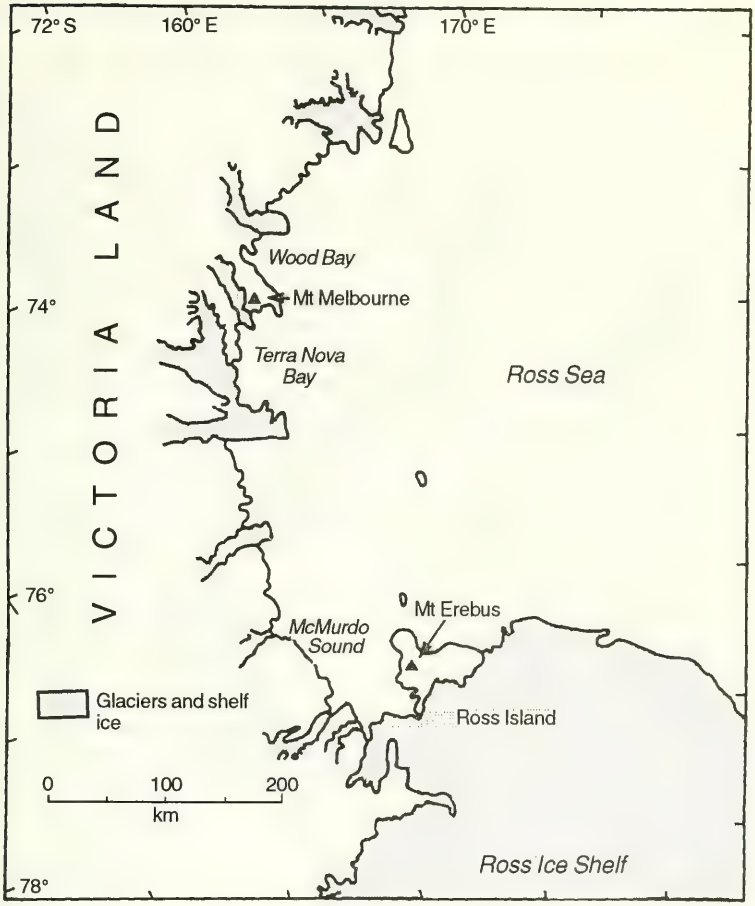
Low impact studies having a minimal effect on the environment of the site.

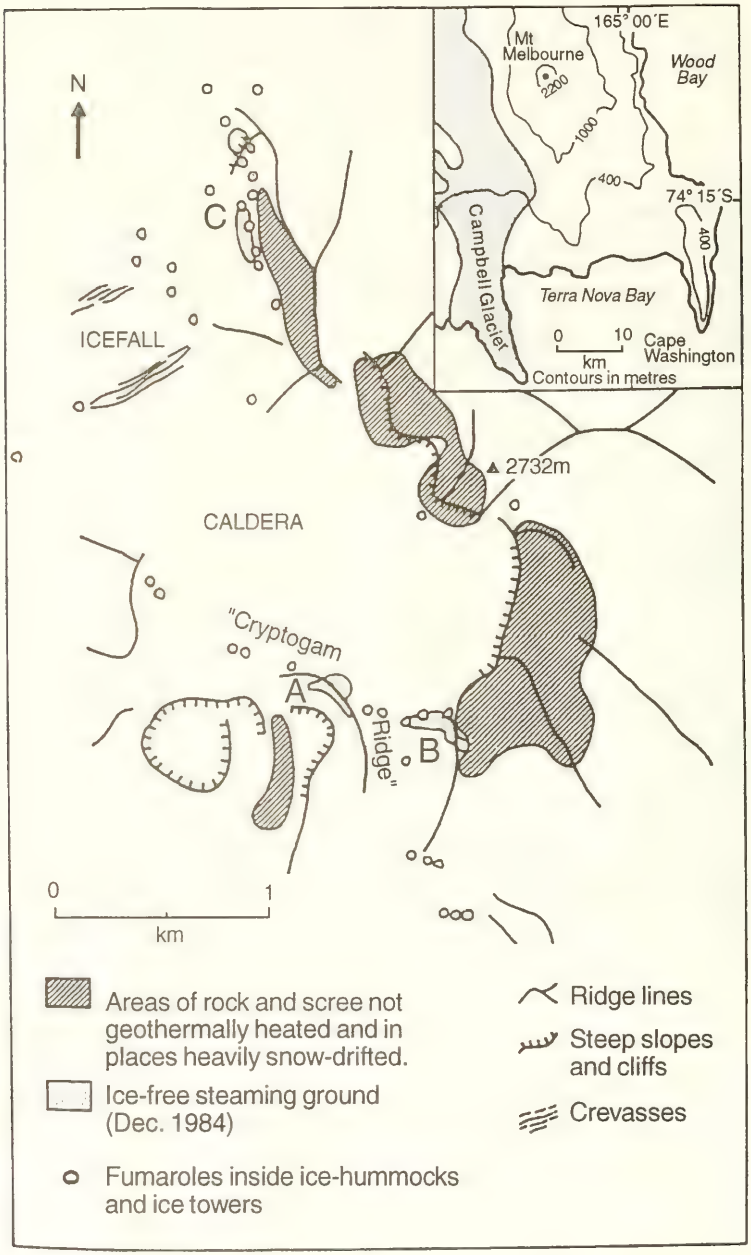
(viii) Scientific sampling

Samples should be taken only for compelling scientific reasons.

(ix) Other restraints

To prevent the introduction of foreign organisms sterile protective overclothing should be worn and footwear should be sterilized before entering the site. Sterilized sampling equipment should also be used. All wastes should be removed from the site.


72° S
160° E
170° E
VICTORIA LAND
Wood Bay
Mt Melbourne
74°
Terra Nova Bay
Ross Sea
76°
Mt Erebus
McMurdo Sound
Glaciers and shelf ice
Ross Island
0
100
200
km
Ross Ice Shelf
78°


N
C
ICEFALL
CALDERA
▲ 2732m
"Cryptogam
A
"Ridge"
B
0
1
km
165° 00´E
Mt Melbourne
2200
Wood Bay
1000
400
74° 15´S
400
Campbell Glacier
Terra Nova Bay
0
10
km
Cape Washington
Contours in metres
Areas of rock and scree not geothermally heated and in places heavily snow-drifted.
Ice-free steaming ground (Dec. 1984)
Fumaroles inside ice-hummocks and ice towers
Ridge lines
Steep slopes and cliffs
Crevasses

SITE OF SPECIAL SCIENTIFIC INTEREST Nº 25

MARINE PLAIN, MULE PENINSULA, VESTFOLD HILLS, PRINCESS ELIZABETH LAND

Management Plan

(1) Description of Site
Physical Features

Marine Plain (23.4 km, lat. 68°38′S, long 78°08′E) opens into an arm of Crooked Fjord on the southern side of Mule Peninsula, the southernmost of the three major peninsulas which comprise the Vestfold Hills. The Vestfold Hills comprise an essentially ice-free oasis (approx. 400 km^2) of bedrock, glacial debris, lakes and ponds at the eastern side of Prydz Bay, Princess Elizabeth Land.

The boundary of the site is as follows: commencing at lat. 68°36′30″S, long. 78°09′00″E it runs south-easterly to lat. 68°36′45″S, long. 78°10′30″E; thence south-easterly to lat. 68°37′30″S, long. 78°10′30″E, then south along the parallel of long. 78°12′30″E to its intersection by the low water mark on the northern shore of Crooked Fjord; from here it follows the low water mark of the northern shore of Crooked Fjord to its intersection with the meridian of long. 78°03′00″E; thence north along the meridian of long. 78°03′00″E to its intersection with the parallel of lat. 68°37′30″S, then north-easterly to lat. 68°37′00″S, long. 78°05′00″E, and finally north-eastwards to the point of commencement.

Topography. The site includes Burton Lake (surface at sea level) as a major component of the western part of the region. An extensive low level (less than 20 m above sea level) area occupies the centre of the site with a north-south orientation. In the north-east is another area below 20 m. Areas above 20 m are mostly low, rugged hills of Precambrian rock acting as divides between the lower part and characterized at their base by a marked change in their slope, probably representing an old (Holocene?) shoreline. The surface of the lower areas below 20 m is marked by a series of concave-to-the-south recessional moraine ridges.

Geology. The Precambrian rock consists for the most part of 3000 Ma gneisses from both igneous and metamorphic protoliths intruded in the course of at least three intervals between 1800 and 1375 Ma by numerous metabasalt dykes with a rough north-south orientation. These dykes are a major feature of the Vestfold Hills. Low lying areas consist of at least 8 melves of early Pliocene (40-46 million years) diatomites and, less commonly, lenticular sandstone overlying the Precambrian rock and occupying the sites of what were embayments in the early Pliocene. In the western part of the central area below 20 m a.s.l., the Pliocene deposits are overlain by a thin veneer of Holocene (6490 ± 130 y BP) glacial debris covering an area of 8-10 sq km, in places containing a few molluscs (Laternula elliptica King and Broderip) in situ. Low scarps in the Pliocene adjacent to small lakes have yielded remains of a new genus, species and probably family - all extinct - of dolphin, and there is evidence of another larger, fossil form.

Meteorology. No data are available from the area, but conditions are similar to those at Davis station, 6 km to the north-west.

Biological features

Terrestrial. Reconnaissance studies have reported few species and no significant stands of vegetation within the site.

Inland Waters. There are many small lakes and ponds.

Marine. Burton Lake opens to Crooked Fjord at its south-western corner and is affected by tides in summer. It has been the site of biological research for several years.

Birds and Seals. No bird or seal surveys have been conducted but it is relatively devoid of birds and sea mammals. Wilson's storm petrels (Oceanites oceanicus) and snow petrels (Pagodroma nivea) occur sporadically and nest in the Precambrian hills.

(ii) Reason for designation

The site is of exceptional scientific interest because of its vertebrate fossil fauna. In addition to the dominant important fossils such as molluscs and diatoms, which define the age of the Pliocene marine sediments,

the site has yielded well-preserved vertebrate remains of a new species, genus and probably family of fossil dolphin and evidence of at least one other vertebrate species.

Burton Lake, as a hypersaline lake which is still in seasonal connection with the sea, presents the opportunity for important limnological research. It represents a unique stage in the biological and physico-chemical evolution of a terrestrial water body from the marine environment. Burton Lake together with several of the smaller lakes, provide important examples of the spectrum of lake types in the Vestfold Hills.

Davis (68°85′S, 77°58′E), a permanently occupied Australian scientific station, is located on Broad Peninsula, the central peninsula of the Vestfold Hills, 6 km to the north-west of the site. It is the focus of continuing biological, including limnological, studies within the Vestfold Hills. As a result of its proximity to Davis station, the scientific value of the site could be diminished by accidental interference. The site lies on the frequently used pedestrian route to the Mule Peninsula lakes (Clear, Laternula, Cemetery and McCallum) from Ellis Rapids and it is critical that fossil fauna should be protected from unrecorded sampling or collection.

(iii) Outline of research

A paleontological research programme has commenced following the initial discovery of vertebrate fossils at the site in 1985. The programme consists of the collection of well-preserved fossil molluscs and diatoms and, in particular, fossil vertebrates, with the aim of documenting the fauna of the epoch. Oxygen isotope studies on the well-preserved bivalve fauna will be employed to help quantify water temperature at that time.

Burton Lake is the subject of detailed year-round research as part of a programme aimed at understanding the evolution of the hydrological system in the Vestfold Hills, by looking at various stages of isolation from the marine environment.

(iv) Date of expiry of designation

31 December 1997

(v) Access points

Access should, where possible, be from the sea ice in Ellis Fjord or Crooked Fjord, or by helicopter at places where no disturbance can be caused by the aircraft to water bodies, vegetation or sediment deposits. If these means of access are not possible, access by land, either by vehicle or on foot, should be via Ellis Rapids at the eastern end of Ellis Fjord.

(vi) Pedestrian and vehicular routes

Vehicles should not be used within the site except for over-snow travel by motorized toboggan. Pedestrians or vehicles must not damage areas of vegetation, or disturb steep inclines marking sediment outcrops or the lake margins near these outcrops.

(vii) Other kinds of scientific investigations which would not cause harmful interference

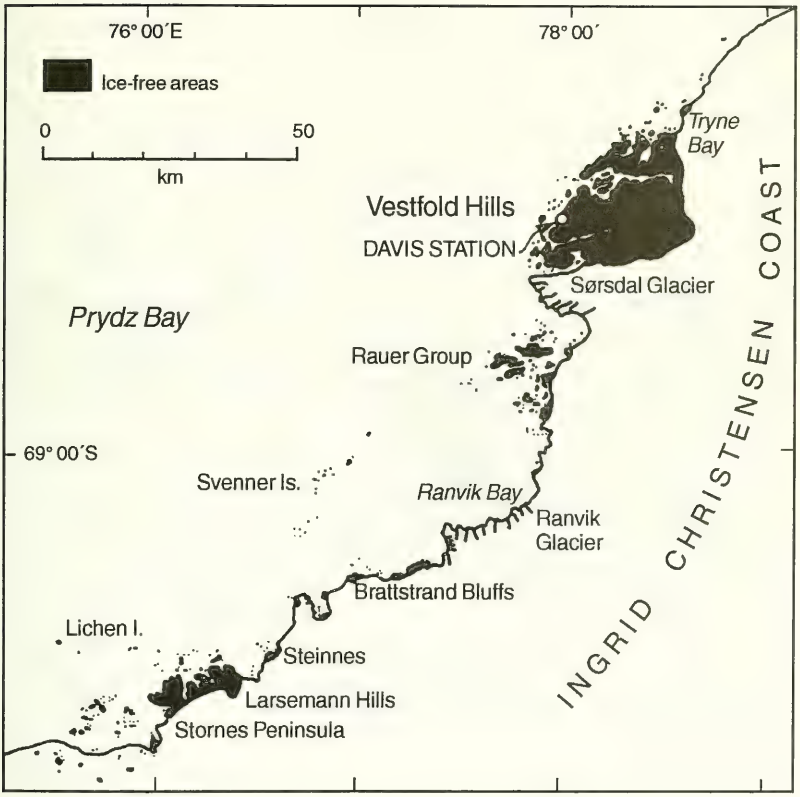
Research on the ecology of Wilson's storm Petrels, snow petrels, mosses and lichens, and other biota, and investigation of water bodies other than Burton Lake. Other scientific investigations which do not disturb the paleontological, ecological and limnological programmes being conducted.

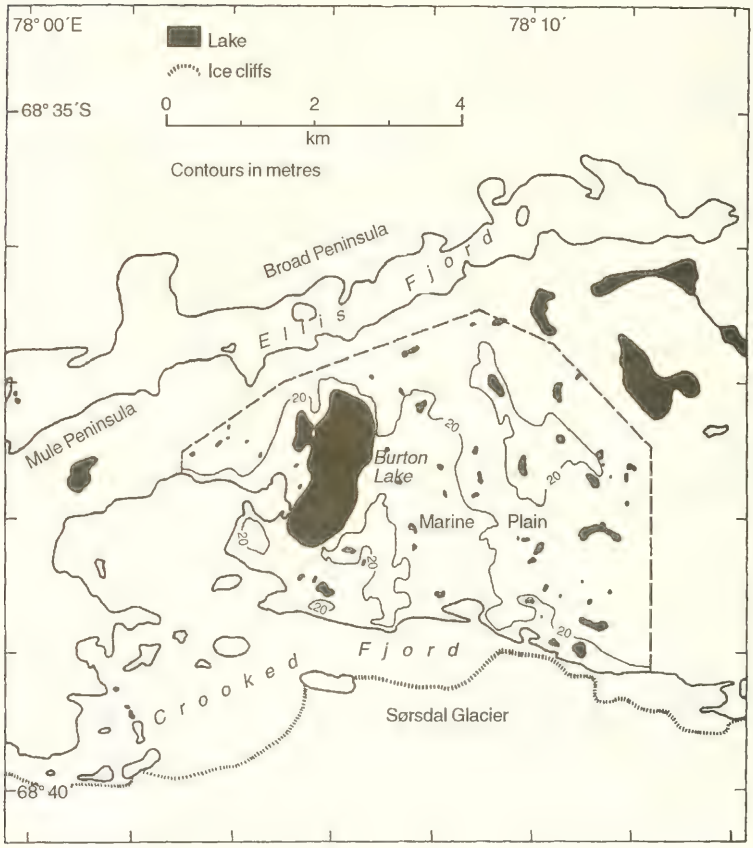
(viii) Scientific sampling

Scientific sampling should be restricted to that required for the programmes described in (iii) and (vii) above.

(ix) Other restraints

All waste materials taken into, or generated within the Site should be removed as soon as practicable. No fuel depots should be made within the Site, nor should refuelling operations be undertaken. No permanent buildings should be erected within the Site. Power boats should not be used on Burton Lake and use of other boats should be restricted to the minimum necessary to support programmes consistent with this plan.


76° 00´E
78° 00´
Ice-free areas
0
50
km
Tryne Bay
Vestfold Hills
DAVIS STATION
Sørsdal Glacier
Prydz Bay
Rauer Group
69° 00´S
Svenner Is.
Ranvik Bay
Ranvik Glacier
Brattstrand Bluffs
Lichen I.
Steinnes
Larsemann Hills
Stornes Peninsula
INGRID CHRISTENSEN COAST


78° 00´E
78° 10´
Lake
Ice cliffs
68° 35´S
0
2
4
km
Contours in metres
Broad Peninsula
Ellis Fjord
Mule Peninsula
Burton Lake
Marine Plain
Crooked Fjord
Sørsdal Glacier
68° 40´
20

SITE OF SPECIAL SCIENTIFIC INTEREST Nº 26

CHILE BAY (DISCOVERY BAY), GREENWICH ISLAND, SOUTH SHETLAND ISLANDS

Management Plan

(i) Description of the Site
Physical Features

The site comprises two small areas of benthic habitat in Chile Bay located as follows:

Benthic habitat A: Between 50 and 100 m depths and the following coordinates:

Lat. 62°28.9′S Long. 59°41′12″W
Lat. 62°29.3′S Long. 59°41′43″W

Benthic habitat B: Between 100 and 200 m depths and between the following coordinates:

Lat. 62°28.3′S Long. 59°40′15″W
Lat. 62°28.7′S Long. 59°40′47″W

The bottom of both sites consists of coarse to fine silt. The lithological and mineralogical composition of the sediments show their provenance from the outcrops and littoral deposits surrounding Chile Bay, i.e., porphyritic andesite, aphanitic andesite, diorite and andesitic volcanic breccia and tuffs. This material is transported to the coastline mainly by glaciers, solifluction and mud flows. These processes are intensified in the inner part of the bay where the glacier terminates. Chile Bay has a transverse submarine barrier, possibly a submerged moraine separating habitats A and B and dividing the bay into an inner and an outer part. Sediments in the inner bay are protected from the action of waves and currents, thereby preserving the grain size distribution, sorting and shape of the contained material.

Biological Features

The benthic assemblages have high species diversity and biomass. Bottom topography and sediment features influence the structure of the communities and distribution pattern. Two assemblages have been recognized: one, dominated by the polychaete Maldane sarsi antarctica, is located in the outer part of the bay, mainly below 100 m depth; other characteristic species are Genaxinus bongranii, Cyamonactra denticulum, Typhlotanais greenwichensis and Pycogonida spp. The inner assemblage, on the other hand, is not dominated by any one species but contains Yoldia eightsii and Eudorella gracilor as characteristic fauna.

(ii) Reason for designation

In Chile Bay there has been continued quantitative and qualitative benthic research since 1967. Data being accumulated provide a baseline for long-term investigations. The site is of exceptional scientific interest and therefore requires long-term protection for possible harmful interference.

(iii) Outline of research

A long-term research program was started in 1967 in connection with the study of benthic fauna re-establishment within Port Foster, Deception Island, following the volcanic eruption of December 1967.

Chile Bay has been designated a control area. These studies are performed yearly in the summer. Community studies to observe biota changes will be augmented with other relevant studies to suit the requirements of a long-term biological monitoring programme.

(iv) Date of expiry of designation

31 December 1997.

(v) Access Points

Although access points as such are not applicable, free passage of ships through these areas is not in any way prejudiced.

(vi) Pedestrian and vehicular routes

Not applicable

(vii) Other kinds of scientific investigations that would not cause harmful interference

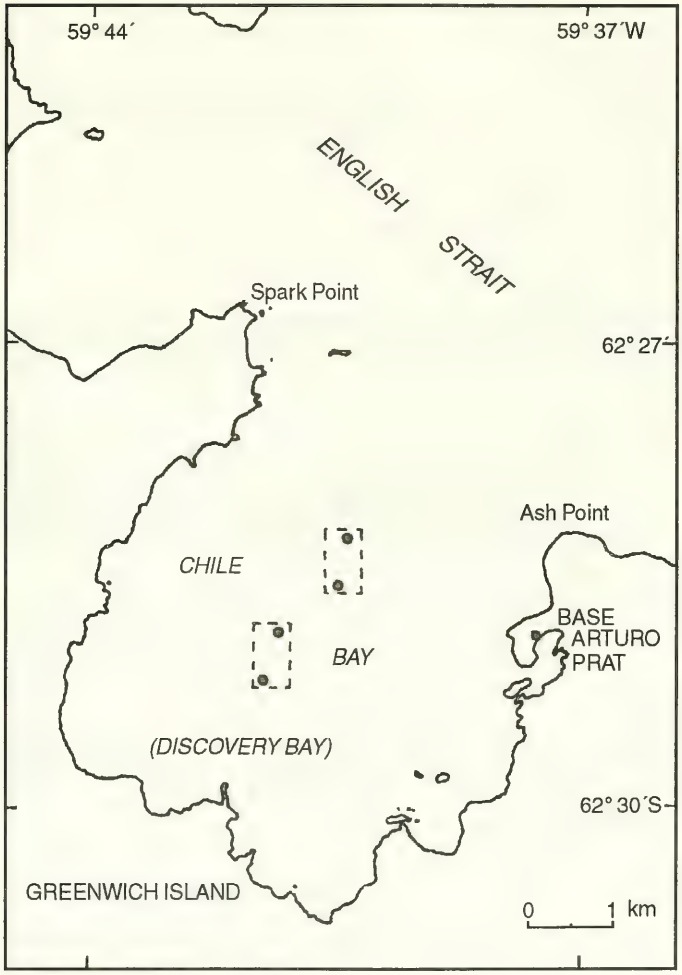
Scientific research other than that disturbing benthic habitats and communities.

(viii) Scientific sampling

Samples from the benthic habitats should be taken only for compelling scientific purposes.

(ix) Other restraints

The dumping of waste from ships and bottom hauling should be avoided. Anchoring should be avoided except in compelling circumstances. Siting of bottom devices should be avoided.


59° 44´
59° 37´W
ENGLISH
STRAIT
Spark Point
62° 27´
Ash Point
CHILE
BASE
ARTURO
PRAT
BAY
(DISCOVERY BAY)
62° 30´S
GREENWICH ISLAND
0 1 km

SITE OF SPECIAL SCIENTIFIC INTEREST Nº 27

PORT FOSTER, DECEPTION ISLAND, SOUTH SHETLAND ISLANDS

Management Plan

(i) Description of the Site
Physical Features

The site comprises two small areas of benthic habitat located in Port Foster as follows:

Benthic habitat A: Between 50 and 150 m depths and the coordinates:

Lat. 62°55.5′S Long. 60°38′00″W
Lat. 62°56.2′S Long. 60°37′00″W

Benthic habitat B: Between 100 and 150 m depths and the coordinates:

Lat. 62°57.2′S Long. 60°37′20″W
Lat. 62°57.9′S Long. 60°36′20″W

Deception Island is a caldera formed by subsidence of a group of Cenozoic volcanoes superimposed along radial faults. Port Foster is an almost entirely enclosed body of water which receives large volumes of fresh water luring periods of melt. In several places there is geothermal activity. The bottom of habitat A consists of coarse to medium-sized, poorly sorted volcanic sediment, and that of habitat B of medium to fine, better sorted volcanic ash.

Biological Features

The composition of the benthic assemblages has varied greatly since the volcanic eruption of December 1967. The most recent data indicate a high dominance of polychaetes, both in terms of number and biomass. The most conspicuous macrofauna in dredge samples include the nemerteans Lineus sp and Paraborlasia corrugatus, the isopod Serolis kemp: the bivalve Yoldia eightsii, the echinoids Abatus agassizi and Sterechinus neumayeri, the asteroids Lysasterias perrieri and Odontaster validus, the ophiuroid Ophionotus victoriae and the holothurian Ypsilothuria sp.

(ii) Reason for designation

The area is of exceptional ecological interest because of its actively volcanic character. The two habitat areas are subject to long-term research programmes and the purpose in designating them is, as far as is possible, to reduce the risk of accidental interference which could jeopardize these scientific investigations.

(iii) Outline of research

Following the volcanic eruption of December 1967, at Deception Island a long-term programme of research was initiated at Port Foster to study the mechanism and paths of the re-establishment of the benthic communities. Community studies to observe biota changes, augmented with other relevant studies to suit the requirement of a long-term biological monitoring programme, are performed periodically.

(iv) Date of expiry of designation

31 December 1997

(v) Access Points

Although access points as such are not designated, free passage of ships through these areas is not in any way prejudiced.

(vi) Pedestrian and vehicular routes

Not applicable

(vii) Other kinds of scientific investigation that would not cause harmful interference

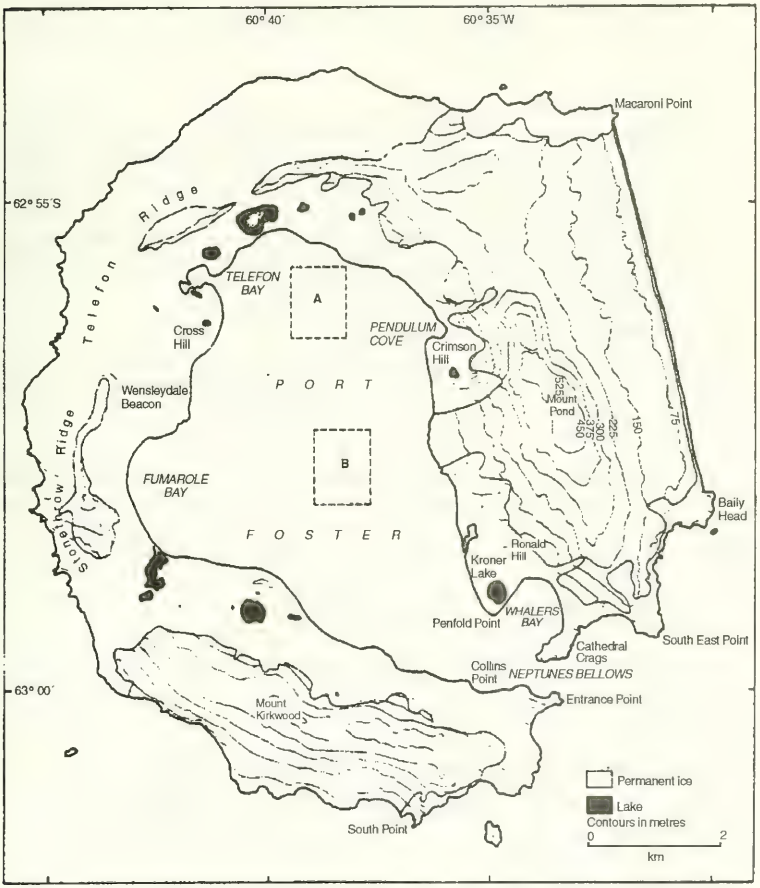
Scientific research other than that disturbing benthic habitats and communities.

(viii) Scientific sampling

Samples from the benthic habitats should be taken only for compelling scientific purposes.

(ix) Other restraints

The dumping of waste from ships and bottom trawling should be avoided. Anchoring should be avoided except in compelling circumstances. Siting of bottom devices should be avoided.



SITE OF SPECIAL SCIENTIFIC INTEREST Nº 28

SOUTH BAY, DOUMER ISLAND, PALMER ARCHIPELAGO

Management Plan

(i) Description of Site
Physical features

Doumer Island lies at the south-west entrances to Neumayer Channel. It is separated from Wiencke Island by the Peltier Channel. South Bay lies on the south coast of Doumer Island. The site consists of a small area of coastal and subtidal benthos down to 45 m depth as follows:

Lat. 64°51′42″S to the North, between Long. 63°34′00″W and Long. 63°35′20″W, and to the South by a diagonal line that starts at a point 100 m north of the Refuge (Sub-base Yelcho) on the southern shore of South Bay and extends to Lat. 64°51′58″S and Long. 63°34′00″W Boundaries are shown on the attached map.

Biological Features

Four different kinds of bottom surface have been described: rocky with algae growth, from 0 to 30 m depth; predominantly rock, covered by algae, silt and large quantities of sponges, from 30 to 110 m depth; mixed bottoms with predominantly deposits of mud and few rock outcrops with sponges, from 100 to 150 m depth; soft bottoms of silt and mud, from 150 to 200 m depth, corresponding to the deepest depression, occur near the centre of the bay just outside the site. The benthic macrofauna richness increases with depth and is accentuated in bottoms with a steep slope. Ice scour exerts a strong influence on the patterns of distribution and the abundance of benthic fauna. Seals, in particular Weddell seals, Leptonychotes weddellii, visit the area to feed. Cetaceans, like killer whales, Orcinus orca and humpback whales, Megaptera novaeangliae, enter the bay. Manu Antarctic seabirds occur transiently in the site.

(ii) Reason for designation

The site is the subject of a long-term research programme on marine ecology and the purpose of designating it is to reduce, as far as is possible, the risk of accidental interference which might jeopardize these scientific investigations.

(iii) Outline of research

The research covers the study of the relationships of the marine organisms in the area. This was started by SCUBA diving in 1972. Since 1981 advanced experiments to elucidate community structure and functioning have been in progress and will continue in the future.

(iv) Date of expiry of designation

31 December 1997

(v) Access points

None specified. The area is not affected by the passage of boats.

(vi) Pedestrian and vehicular routes

Not applicable

(vii) Other kinds of scientific investigation that would not cause harmful interference

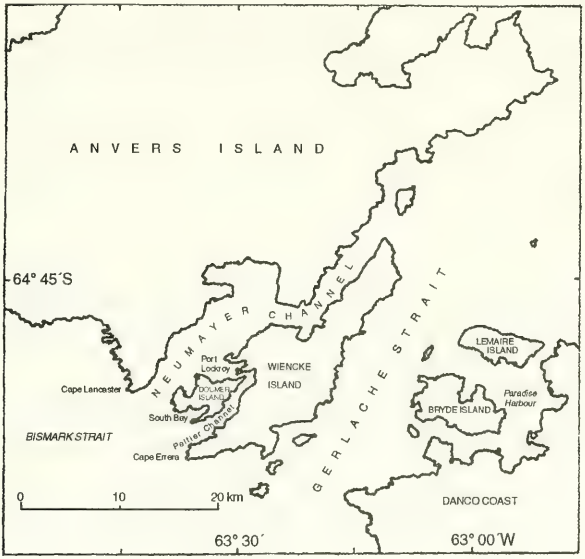
Scientific research other than that disturbing benthic habitats and communities.

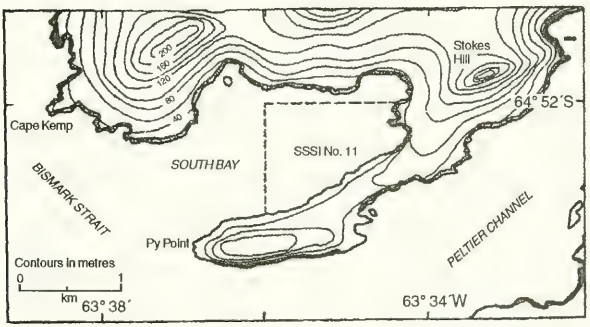
(viii) Scientific sampling

Collection of samples should be made only for compelling scientific purposes.

(ix) Other restraints

The dumping of wastes from ships or boats and bottom trawling should be avoided. Anchoring should be avoided except for compelling reasons.





XIV-6

MARINE SITES OF SPECIAL SCIENTIFIC INTEREST

The Representatives,

Recalling Article II of the Antarctic Treaty, Recommendation VII-3 and VIII-3;

Conscious of the need to protect marine scientific investigations which might suffer from willful or accidental interference;

Desiring to protect inshore marine sites of scientific interest where harmful interference is generally recognized to be likely;

Recognizing the need to protect such marine scientific investigations;

Recognizing that a limited number of inshore marine sites of exceptional scientific interest may require long-term protection from harmful interference;

Recommend to their Governments that:

1. They invite SCAR through their National Committees, to have regard to the following when considering proposals for marine Sites of Special Scientific Interest:

(a) Marine sites should be proposed only when:

(i) marine scientific investigations are being carried out or are planned to begin before the following meeting of SCAR, and there is a demonstrable risk of interference which would jeopardize those scientific investigations; or

(ii) they are of exceptional scientific interest and therefore require a measure of long-term protection from harmful interference.

(b) Marine sites should be proposed for designation up to a specified date, which may be extended following a review by SCAR;

(c) Proposals for the designation of marine sites should be accompanied by management plans which should include inter alia, and where applicable, the following details:

(i) A description of the marine site, together with a map delimiting its boundaries;

(ii) A statement setting out the reasons in conformity with paragraphs 1 (a) (i) and (ii) above for designation of the marine site;

(iii) A description of the scientific investigations being carried out or planned;

(iv) The proposed date at which the designation will expire unless extended;

(v) If adjacent to the coast, proposed points of access;

(vi) Other kinds of scientific investigations which would not cause harmful interference with the investigations described at paragraph (c) (iii) above;

(vii) Whether specific kinds of scientific sampling may take place and guidelines for such sampling.

2. They invite SCAR, through their National Committees to initiate review of those marine sites whose designation is likely to terminate before the second following Antarctic Treaty Consultative Meeting.

3. They request their national offices responsible for Antarctic activities to maintain a record of activities within each marine site of Special Scientific Interest in which their scientists are active.

4. Scientists wishing to work within marine Sites of Special Scientific Interest should consult their national offices responsible for Antarctic activities to obtain authorization.

XIV-7

ANTARCTIC METEOROLOGY AND TELECOMMUNICATIONS

The Representatives,

Recalling Article IV of the Antarctic Treaty and Recommendations VI-3, X-3 and XII-1;

Noting the Final Report of the World Meteorological Organization (WMO) Executive Council Working Group on Antarctic Meteorology, Fourth Session (EC/WGAM-IV), (September 1986) and subsequent action taken by the WMO Tenth Congress (May 1987), relating to Antarctic Meteorology.

Recommend to their Governments that:

1. Having regard to Recommendations 6 and 8 of EC/WGAM-IV (reproduced at Annex H to the Final Report of the XIVth Consultative Meeting), they accept Annex 1 to this Recommendation as a current statement of the Basic Synoptic Network and the Network of Climat and Climat Temp Reporting Stations in the Antarctic and that, as a consequence, Annex I to Recommendation XII-1 be withdrawn;

2. Annexes 1, 2 and 3 to Recommendation X-3 and Annexes 2 and 3 to Recommendation XII-1 be withdrawn and replaced by Annexes 2 and 3 to this Recommendation as a current statement of the "Existing links for the daily international exchange of meteorological data within the Antarctic" and the "Principal routes by which Antarctic meteorological data enter the GTS" (Global Telecommunications System of the WMO World Weather Watch);

3. Annexes I and II to Recommendation VI-3 be withdrawn and replaced by Annexes 4 and 5 to this Recommendation as current statements of Requirements for Observational Data and Requirements for Processed Information;

4. Having regard to paragraph 4.1 and Annex I to the Final Report of EC/WGAM-IV (reproduced at Annex I to the Final Report of ATCM XIV), they:

(a) respond expeditiously in respect of paragraph 288, sub-paragraphs (a) and (e);

(b) invite WMO to identify such areas of difficulty as there may be in respect of the transmission of meteorological data inside Antarctica, between the Antarctic and the outside world (in both directions) and in the operation of the GTS and to use all feasible means, through the exercise of their good offices, to see if such difficulties can be resolved;

(c) also be ready to consider a joint meeting of WMO and SCAR telecommunication experts, convened in accordance with Recommendation IV-24, in the light of any report which may be prepared reflecting action taken in accordance with sub-paragraph (b) above;

(d) respond positively to requests received in accordance with sub-paragraphs (b) and (c) of paragraph 289, subject to overriding scientific, administrative or budgetary considerations;

(e) request WMO, when passing to Antarctic Treaty Consultative Parties their recommendations arrived at in accordance with sub-paragraph (d) of paragraph 289, to set out in specific terms the technical functions, capacities and services of proposed "Antarctic Meteorological Centres" and WMO's view on the justification for the designation of each proposed Centre;

(f) be prepared to respond to any request for designation received from WMO, in accordance with sub-paragraph (e) of paragraph 289, on the understanding that any such designations and activities carried out accordingly, will be subject to Article IV of the Antarctic Treaty.

ANNEXES

ANNEX 1

STATIONS AND OBSERVATIONAL PROGRAMMES COMPRISING THE BASIC SYNOPTIC NETWORK IN THE ANTARCTIC

STATION	SURFACE								RADIOWIND		RADIOSONDE	
	00	03	06	09	12	15	18	21	00	12	00	12
88963 ESPERANZA	x		x		x		x					
968 ORCADAS	x	x	x	x	x	x	x	x		x		x*
970 MATIENZO B.A.*	x		x		x		x					
89034 BELGRANO	x		x		x		x					
053 JUBANY	x		x		x		x					
055 CENTRO MET. ANTARTICO "VICECOMODORO MARAMBIO"	x	x	x	x	x	x	x	x		x		x*
066 SAN MARTIN	x		x		x		x					
001 S.A.N.A.E. STATION	x	x	x	x	x	x	x	x	x	x	x	x*
002 GEORG VON NEUMAYER	x		x	x	x	x	x	x				x
009 AMUNDSEN-SCOTT	x		x		x		x		x	x*	x	x*
664 MCMURDO	x		x		x		x		x	x*	x	x*
022 HALLEY	x	x	x	x	x	x	x			x		x*
042 SIGNY ISLAND	x			x								
062 ROTHERA POINT	x		x		x		x					
063 FARADAY (ARGENTINE ISLAND)	x	x	x	x	x	x	x	x				
065 FOSSIL BLUFF*	x				x			x				
050 BELLINGSHAUSEN	x		x		x		x		x		x	
132 RUSSKAYA	x		x		x		x					
512 NOVOLAZAREVSKAJA	x	x	x	x	x	x	x	x	x		x	
542 MOLODEZNAJA	x	x	x	x	x	x	x	x	x	x	x	x*
592 MIRNYJ	x	x	x	x	x	x	x	x	x		x	
606 VOSTOK	x		x		x		x		x		x	
657 LENINGRADSKAJA	x	x	x	x	x	x	x	x	x			
056 CENTRO MET.ANTARTICO "PDTE.EDUARDO FREI"	x		x		x		x					
057 BASE ARTURO PRAT	x		x		x		x					
059 BASE BERNARDO O'HIGGINS	x		x		x		x					
532 SYOWA	x	x	x	x	x	x	x	x	x	x	x	x*
564 MAWSON	x	x	x	x	x	x	x	x	x	x		x*
571 DAVIS	x	x	x	x	x	x	x	x	x	x	x	
611 CASEY	x	x	x	x	x	x	x	x	x	x	x	
642 DUMONT D'URVILLE	x	x	x	x	x	x	x	x		x	x	
661 PALMER	x				x		x					
054 DINAMET-URUGUAY	x	x	x	x	x	x	x	x				
058 GREAT WALL	x				x		x					
510 DAKSHIN GANGTORI	x	x	x	x	x	x	x	x			O	

O Once weekly * Summer only

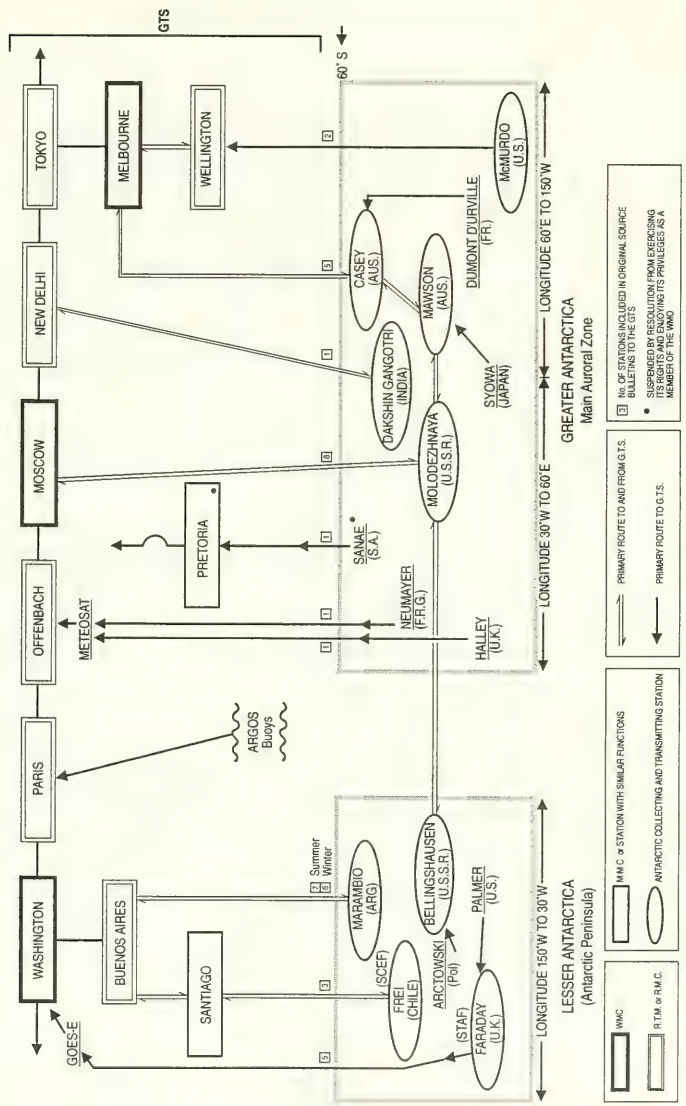
NETWORK OF CLIMAT AND CLIMAT TEMP REPORTING STATIONS IN THE ANTARCTIC

	STATION	CLIMAT	CLIMAT TEMP
88963	ESPERANZA	x	
968	ORCADAS	x	x
89034	TELGRANO	x	
053	TENIENTE JUBANY EC	x	
055	CENTRO MET. ANTARTICO "VICECOMODORO MARAMBIO"	x	x
066	SAN MARTIN	x	
001	S.A.N.A.E. STATION	x	x
002	GEORG VON NEUMAYER	x	x
009	AMUNDSEN-SCOTT	x	x
664	MCMURDO	x	x
022	HALLEY	x	x
062	ROTHERA POINT	x	
063	FARADAY (ARGENTINE ISLAND)	x	
050	BELLINGSHAUSEN	x	x
132	RUSSKAYA	x	
512	NOVOLAZAREVSKAJA	x	x
542	MOLODEZNAJA	x	x
592	MIRNYJ	x	x
606	VOSTOK	x	x
657	LENINGRADSKAJA	x	x
054	DINAMET URUGUAY	x	
056	CENTRO MET.ANTARTCIO "PDTE.EDUARDO FREI"	x	x
057	BASE ARTURO PRAT	x	
059	BASE BERNARDO O'HIGGINS	x	
532	SYOWA	x	x
564	MAWSON	x	x
571	DAVIS	x	x
611	CASEY	x	x
642	DUMONT D'URVILLE	x	x

ANNEX 2

NAME (S/W)
ANTARCTIC COLLECTING STATION WITH THE NUMBER OF STATIONS FROM WHICH DATA ARE COLLECTED
S: SUMMER
W: WINTER
TELECOMMUNICATION MEANS
S/W
POINT TO POINT LINK
OMNIDIRECTIONAL RADIO BROADCAST
irr: IRREGULAR
RADIO BROADCASTS
FREI F1: H + 05 (SYNOP)
MARAMBIO A1, F1: H + 30 (SYNOP), H + 160 (TEMP)
MOLODEZHNAYA F4, F1: H + 45 (SYNOP), H + 180 (TEMP)
LESSER ANTARCTICA
(Antarctic Peninsula)
GREATER ANTARCTICA
(Main Auroral Zone)
MARAMBIO 8S/7W
GREAT WALL
BELLINGSHAUSEN
ARCTOWSKI
FREI 3
PALMER
FARADAY 5
(on call)
ROTHERA
F1
A1
irr
NOVOLAZAREVSKAYA
SYOWA/MIZUHO
F1
F4
MOLODEZHNAYA 6
SANAE
NEUMAYER
HALLEY
DAVIS
MAWSON
POLE
McMURDO 2
CASEY 5
DUMONT D'URVILLE

ANNEX 3


GTS
60° S
WASHINGTON
PARIS
OFFENBACH
MOSCOW
NEW DELHI
TOKYO
MELBOURNE
WELLINGTON
BUENOS AIRES
SANTIAGO
METEOSAT
ARGOS Buoys
GOES-E
PRETORIA
SANAE (S.A.)
NEUMAYER (F.R.G.)
HALLEY (U.K.)
MOLODEZHNAYA (U.S.S.R.)
DAKSHIN GANGOTRI (INDIA)
SYOWA (JAPAN)
MAWSON (AUS.)
CASEY (AUS.)
DUMONT D'URVILLE (FR.)
McMURDO (U.S.)
MARAMBIO (ARG.)
(SCEF)
FREI (CHILE)
ARCTOWSKI (Pol)
(ISTAF)
BELLINGSHAUSEN (U.S.S.R.)
PALMER (U.S.)
FARADAY (U.K.)
Summer
Winter
LONGITUDE 150°W TO 30°W
LONGITUDE 30°W TO 60°E
LONGITUDE 60°E TO 150°W
LESSER ANTARCTICA
(Antarctic Peninsula)
GREATER ANTARCTICA
Main Auroral Zone
WMC
R.T.H. or R.M.C.
M.M.C. or STATION WITH SIMILAR FUNCTIONS
ANTARCTIC COLLECTING AND TRANSMITTING STATION
PRIMARY ROUTE TO AND FROM G.T.S.
PRIMARY ROUTE TO G.T.S.
No. OF STATIONS INCLUDED IN ORIGINAL SOURCE BULLETINS TO THE GTS
SUSPENDED BY RESOLUTION FROM EXERCISING ITS RIGHTS AND ENJOYING ITS PRIVILEGES AS A MEMBER OF THE WMO

ANNEX 4

Requirements of the observational data
Part I

DATA REQUESTED FROM \ DATA REQUESTED BY		McMurdo	McMurdo	Dumont d'Urville	Dumont d'Urville	Casey	Davis	Mawson	Syowa	Bellingshausen	Molodeznaja	Frei	Marambio	Great Wall	Rothera	Santiago	Buenos Aires	Pretoria	Wellington	Melbourne	Mecca	Washington	Blackwell	Tokyo	New Delhi
Esperanza	88963	4	1							4	4	4	4		4	4	4	2		4	4	4	4	4	4
Orcadas	88968	2/4	1/1							2/4	24	2/4	2/4		4	2/4	2/4	2/4		2/4	2/4	2/4	2/4	2/4	2/4
Matienzo	88970	4	1							4	4	4	4		4	4	4	2		4	4	4	4	4	4
Belgrano	89034	4	1							4	4	4	4		4	4	4	2		4	4	4	4	4	4
Jubany	89053												4			4	4			4	4	4	4		
Marambio	89055	1/4	1/1						1/2	1/4	1/4	1/4	X		1/4	1/4	1/4	1/2		1/4	1/4	1/4	1/4	1/4	1/4
San Martin	89066	4	1							4	4	4	4		4	4	4	2		4	4	4	4	4	4
Frei	89056	4	1							4	4	X	4	4	4	2/4	4	2		4	4	4	4	4	4
Prat	89057	4	1							4	4	4	4		4	4	4	2		4	4	4	4	4	4
O'Higgins	89059	4	1							4	4	4	4		4	4	4	2		4	4	4	4	4	4
Great Wall	89058											4	X			4							4	4	4
Dinamet -Uruguay												4				4							4	4	4
Arctowski	89052								2			4	4	2			4			4			4	4	4
SANAE	89001	1/4	1/1	1/2	1/1				1/4	1/4	1/4	4	1/4		1/4		1/4	1/2	1/4	1/4	1/4	1/4	1/4	1/4	1/4
Neumayer	89002	4	1	2	1					4	4	4	4		4		4	2	4	4	4	4	4	4	4
Dakshin Gangtori	89510																								
Syowa	89532	2/4	1/1	2/2	1/1	2/4	2/4	2/4	X	2/4	2/4	4			2		2/4	24	2/4	2/4	2/4	2/4	2/4	2/4	2/4
Mizuho	89544														2										
Mawson	89564	2/4	1/1	2/2	1/1	2/4	2/4	X	1/4	2/4	2/4	4	2/4		2/2		2/4	2/2	2/2	2/4	2/4	2/4	2/4	2/4	2/4
Davis	89571	2/4	1/1	2/2	1/1	2/4	X	2/4	1/2	2/4	2/4	4	2/4		2/2		2/4	2/2	2/4	2/4	2/4	2/4	2/4	2/4	2/4
Casey	89611	2/4	1/1	2/4	1/1	X	2/4	2/4	1/2	2/4	2/4	4	2/4		2/2		2/4		2/4	2/4	2/4	2/4	2/4	2/4	2/4
Dumont d'Urville	89642	2/4	1/1	X	X	2/4	2/4	2/4	1/2	2/4	2/4	4	2/4		2/2		2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/4
McMurdo	89664	X	X	2/4	1/1				1/2	2/4	2/4	4	2/4		2/2		2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/4
Amundsen-Scott	89009	2/4	1/1	2/2	1/1				1/2	2/4	2/4	4	2/4		2/2		2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/4
Palmer	89061											4	4		4		4						4	4	4
(Scott Base)												4	4		4		4		4		4	4	4	4	4

Key : A = As available.
B = When requested.
M = Monthly.

Upper air / Surface

Requirements of the observational data
Part II

DATA REQUESTED FROM		DATA REQUESTED BY: McMurdo	McMurdo	Dumont d'Urville	Dumont d'Urville	Casey	Davis	Mawson	Syowa	Bellingshausen	Molodeznaja	Frei	Marambio	Great Wall	Rothera	Santiago	Buenos Aires	Pretoria	Wellington	Melbourne	Mecca	Washington	Blackwell	Tokyo	New Delhi
Halley	89022	1/4	1/1						1/4	1/4	1/4	4	1/4		4	4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4
Signy	89042	4	1						4	4	4	4	4		2	4	4	4		4	4	4	4	4
Rothera	89062	4	1						4	4	4	4	4		X	4	4	4		4	4	4	4	4
Faraday	89063	4	1						4	4	4	4	4		4	4	4	4		4	4	4	4	4
Fossil Bluff	89065	4	1						4	4	4	4	4		4	4	4	4		4	4	4	4	4
Bellingshausen	89050	2/4	1/1	2/2	1/1				1/2	X	2/4	4	2/4	1/2	1/4	4	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/4
Russkaya	89132	4	1	2	1				2	4	4	4	4		4		4	4	4	4	4	4	4	4
Novolazarevskaja	89512	2/4	1/1	2/2	1/1				1/4	2/4	2/4	4	2/4				2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/4
Molodeznaja	89542	2/4	1/1	2/2	1/1				2/4	2/4	X	4	2/4	2			2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/4
Mirnyj	89592	2/4	1/1	2/2	1/1				2/4	2/4	2/4	4	2/4				2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/4
Vostok	89606	2/4	1/1	2/2	1/1				1/2	2/4	2/4	4	2/4				2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/4
Leningradskaja	89657	2/4	1/1	2/2	1/1				1/2	2/4	2/4	4	2/4		2/4		2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/4
Region I Selection																								
Blocks 61, 67, 68		2/4	1/1	1/1	1/1												2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/4
(South of 20 S)																								
Region III Selection		2/4	1/1									1/2	2/4		2/4	2/4	2/4	2/4		2/4	2/4	2/4	2/4	2/4
Blocks 85, 37, 58																								
Region V Selection																								
Blocks 91, 93, 94, 95		2/4	1/1	1/1	1/1											2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/4	2/4
(South of 20 S)																								
All Southern Hemisphere									2/4	2/4							2/4	2/4		2/4	2/4	2/4	2/4	2/4

Key : A = As available.
B = When requested.
M = Monthly.

Upper air
Surface

ANNEX 5

Requirements for the process information
Part I

Data Required From	Data Required By	Surface		Upper Air Analyses and Prognoses								Hazardous Weather Warnings				Marine Forecast																	
		Analyses	Prognoses	500	300	200	All available	Neph. Aral	CLIMAT	CLIMAT TEMP	Terminal Forecast	Bellingshausen Sea	Drake Passage	Weddell Sea	Scotia Sea	Bellingshausen Sea	Drake Passage	Weddell Sea	Other processed Data															
I PROCESSED DATA REQUIRED BY ANTARCTIC STATIONS FROM OUTSIDE TREATY AREA																																	
Melbourne	Dumont d'Urville	2[4]	2[4]	2[4]																													
Melbourne	Frei	4	4		2[1]	2[1]		2																									
	McMurdo	4		2[1]	2[1]		A[1]																										
	Mawson	A	A	A															X[6]													
	Casey	A	A	A															X[6]													
	Davis	A	A	A															X[6]													
	Molodeznaja	4	4	2	2			A	1	1																							
Buenos Aires	Molodeznaja	4	4	2	2			A	1	1																							
	Marambio	4	4	2	2	2	4	2	1		1	1	1	1	1	1	1																
	McMurdo								1	1	1																						
	Arctowski	4	4	2	2			A																									
Wellington	McMurdo							2			[3]																						
Christchurch		4	4					2	M	M									A[(ice)]													
Bracknell	Marambio	A	A	A	A	A		A			1	1	1	1	1	1	1	1	1													
	Buenos Aires																																
	Rothera	A	A	A															(ice)													
Nairobi	Molodeznaja	4	4	2	2			A																									
Rio de Janeiro	Molodeznaja							A																									
Washington	Molodeznaja							A																									
Santiago	Frei	4	4	1	1																												
Punta Arenos	Frei	3	3																														
II PROCESSED DATA BY CENTRES OUTSIDE THE TREATY AREA FROM ANTARCTIC STATIONS																																	
Molodeznaja	Pretoria	2	2	2	2	2																											
	Moscow	2	2																														
McMurdo	Melbourne	A	A	A																													
	Wellington	1[2]	1[2]	1[2]	1[2]																												
All Antarctic Stations	Buenos Aires	4	4			2																											
	Melbourne	A					A																										
Marambio	Buenos Aires	2	3	1		1		2	M	1	2	2	2	2	2	2	2	2															
	Melbourne	A	A				A	A	A	A																							
	Christchurch																																
	Bracknell								A	A																							
	Washington								A	A																							
Frei	Santiago	3	2						1	1						2		2															
	Punta Arenos	3	2													2		2															

Key : A = As available.
B = When requested.
M = Monthly.

Requirements for the process information
Part II

| | | Surface | | Upper Air Analyses and Prognoses | | | | | | | Hazardous Weather Warnings | | | | Marine Forecast | | | | | | |

XIV-8

HISTORIC SITES AND MONUMENTS

The Representatives,

Recalling Recommendations I-IX, V-4, VI-14, VII-9, XII-7 and XIII-16;

Recommend to their Governments that the following historic monuments be added to the "List of Historic Monuments Identified and Described by the Proposing Government or Governments" annexed to Recommendation VII-9 and that, thereafter, they be accorded the respect and protection required by the Recommendations recalled above:

53. Monoliths and Commemorative Plaques celebrating the rescue of survivors of the British ship "Endurance" by the Chilean Navy cutter "Yelcho" displaying the following words:

"Here, on August 30th., 1916, the Chilean Navy cutter "Yelcho" commanded by Pilot Luis Pardo Villalón rescued the 22 men from the Shackleton Expedition who survived the wreck of the "Endurance" living for four and one-half months in this Island."

The Monolith and the plaques have been placed on Elephant Island (61°03′ Lat. S., 54°50′ Long. W.) and their replicas on the Chilean bases "Arturo Prat" (62°30′ Lat. S., 59°49′ Long. W.) and "Lieutenant Rodolfo Marsh" (62°12′ Lat. S., 62°12′ Long. W.).

XIV-9

AIR SAFETY IN ANTARCTICA

The Representatives,

Recalling Recommendation I-X;

Recognizing the importance of safe air operations in the Antarctic and:

(i) that there is a wide range of problems in air operations which are becoming more important and urgent with increasing activity;

(ii) that the principal body of knowledge and experience of Antarctic air operations, and its current problems, lies with the operators of national Antarctic programmes.

Recommend to their Governments that:

1. Arrangements be made for a meeting of experts in accordance with Recommendation IV-24, to be held well in advance of the Fifteenth Consultative Meeting, at a time and place to be decided through diplomatic channels, and that the host Government for the XVth Consultative Meeting should initiate the necessary consultations. Delegations from Consultative Parties to the meeting should include experts with direct experience in Antarctic operations. In the course of preparing for the meeting, consideration shall be given to the invitation of ICAO and other experts to attend the meeting in accordance with paragraph 1 of Recommendation IV-24 (e.g. WMO, ITU);

2. The terms of reference for the meeting shall be to provide for:

(i) avoidance of inter-operator air-incidents;

(ii) mutual assistance in the course of Antarctic operations, including medical evacuations;

(iii) co-ordinated measures to improve search and rescue procedures.

3. In the fulfillment of these terms of reference, the meeting shall have regard to:

(i) existing systems for safe air operations;

(ii) means of mutually co-ordinating air traffic movements in Antarctica;

(iii) means of ensuring adequate communications between operators originating air traffic movements, between aircraft and stations in the vicinity of their operations and between aircraft, including consideration of the possible advantages of satellite communications and adoption of predetermined radio frequencies;

(iv) means of rapidly initiating search and rescue operations, including the advantages of using common dedicated calling frequencies and of co-ordinating subsequent operations;

(v) how best to ensure that all operators in the Antarctic are aware of air-operational safety requirements and search and rescue procedures;

(vi) air operations from ships.

4. In order to facilitate the work of the Meeting they provide relevant information to the host Government, preferably 3 months in advance of the meeting, for circulation to other Consultative Parties. An indicative list of such information is set out in the Annex to this recommendation.

5. The report of the meeting be circulated to all Consultative Parties and be referred for consideration at the XVth Consultative Meeting in accordance with Paragraphs 3 and 4 of Recommendation IV-24.

ANNEX

The following information is an indicative list of the relevant information to be circulated to all Consultative Parties prior to the Meeting of Experts on Air Safety in Antarctica as recommended at the XIVth Consultative Meeting:

(i) Current areas of air operation;

(ii) Period and frequency of operation;

(iii) Types of aircraft used and their navigation and communication equipment;

(iv) Operating altitudes and ranges;

(v) Other airborne devices (e.g. balloons, rockets) or other uses of air space in Antarctica;

(vi) Runway length, width, slope, orientation, surface type and condition, load capacity and markings;

(vii) Radio Direction Finding and Distance Measuring equipment;

(viii) Navigation aids, including beacon power and frequencies and communications equipment;

(ix) Features in the vicinity of landing facilities which could be hazardous to aircraft;

(x) Prevailing weather conditions of significance to air operations in the vicinity of landing facilities;

(xi) Service facilities;

(xii) Type and specification of fuel used;

(xiii) Operating times of landing and communication facilities;

(xiv) Available air navigation charts and published visual and instrument approach procedures;

(xv) Medical facilities available, including medical personnel, and whether stations have trained search and rescue personnel.

XIV-10

MARINE METEOROLOGICAL AND SEA ICE INFORMATION SERVICES FOR NAVIGATION IN THE TREATY AREA OF THE SOUTHERN OCEAN

Recalling Article II of the Antarctic Treaty and Recommendations relating to co-operation with regard to Antarctic logistics (II-V, III-3, IV-25) and Antarctic meteorology and telecommunication (I-II, II-3, III-5, IV-26, V-2, VI-1, VI-3, VII-7, IX-3, X-3, XII-1, XII-2);

Aware of numerous cases when ships have been lost or beset in Antarctic sea ice for long periods;

Aware (i) of increasing interest in the science and operational relevance of Antarctic meteorology and sea ice studies on the part of the WMO, SCAR, and IOC as indicated by existing research projects of these international bodies;

(ii) of advances in satellite monitoring of marine meteorological and sea ice conditions and of the consequent improvement in the quality, reliability and content of their assessment and prediction;

(iii) of the strides that have been made in predicting optimal ship routings with respect to marine meteorological and sea ice conditions;

(iv) of existing marine meteorological and sea ice services;

Considering advances in telecommunication and the exchange of marine meteorological and sea ice information;

Desiring to apply the benefits of these developments to the improvement of real time data utilization and prediction of weather, sea ice, currents and sea-state conditions (particularly in the sea ice zone) with a view to further increasing the efficiency and the safety of navigation;

Recommend to their Governments that:

1. They invite WMO and SCAR (through their Permanent Representatives and their National Committees, respectively) to consider ways of improving or developing operational marine meteorological and sea ice information services in the Treaty Area of the Southern Ocean;

2. Any such consideration should take into account the Implementation Programme for the Antarctic described in Annex I of the Final Report of the Fourth Session of the EC Working Group on Antarctic Meteorology (September 1986), and subsequent pertinent decisions of the Tenth WMO Congress (May 1987);

3. Such consideration be coordinated with the IOC;

4. After receiving a response from WMO and SCAR, they convene, if necessary, in accordance with Recommendation IV-24, a Meeting of Experts to consider how an improved approach to marine meteorological and sea ice information services in the Treaty Area of the Southern Ocean could be implemented.

Measures Approved or Recommended Under Article IX in Furtherance of Principles and Objectives of the Antarctic Treaty, Paris, 1989

Adopted at Paris 20 October 1989

Not in effect

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RECOMMENDATIONS ADOPTED AT THE XVTH ANTARCTIC TREATY CONSULTATIVE MEETING

XV - 1

COMPREHENSIVE MEASURES FOR THE PROTECTION OF THE ANTARCTIC ENVIRONMENT AND DEPENDENT AND ASSOCIATED ECOSYSTEMS

The Representatives,

Convinced of the need to preserve the Antarctic Treaty system so as to ensure that Antarctica does not become the scene or object of international discord;

Bearing in mind the special legal and political status of Antarctica and the special responsibility of the Antarctic Treaty Consultative Parties to ensure that all activities in Antarctica are consistent with the purposes and principles of the Antarctic Treaty;

Recalling the designation of Antarctica as a Special Conservation Area;

Recognising the vulnerability to human interference of the Antarctic environment and its dependent and associated ecosystems;

Recognising further the unique opportunities Antarctica offers for scientific research on processes of global as well as regional importance;

Taking into account international concern for the environment and the importance of Antarctica for the global environment;

Bearing in mind the substantial body of measures adopted by the Antarctic Treaty Consultative Parties in recognition of their special responsibilities for the protection of the Antarctic environment and its dependent and associated ecosystems;

Recalling in this context Articles V and IX (1) (f) of the Antarctic Treaty and Recommendations setting out general principles for the protection of the Antarctic environment;

Recalling also:

(a) the Agreed Measures for the Conservation of Antarctic Fauna and Flora and associated Recommendations;

(b) the Convention for the Conservation of Antarctic Seals (which entered into force on 11 March 1978);

(c) the Convention on the Conservation of Antarctic Marine Living Resources (which entered into force on 7 April 1982);

(d) the Convention on the Regulation of Antarctic Mineral Resource Activities (which has not yet entered into force);

(e) Recommendations relating to:

(i) the Antarctic Protected Area system concerning Specially Protected Areas, Sites of Special Scientific Interest and Historic Sites and monuments;

(ii) the Code of Conduct for Antarctic expeditions and station activities;

(iii) the effects of Antarctic tourism and non-governmental expeditions;

(iv) the use of radio-isotopes;

(v) oil contamination;

(vi) the prohibition on the disposal of nuclear waste; and

(vii) environmental impact assessment procedures;

as well as work undertaken in relation to the uses of Antarctic ice;

Taking note of proposals made at XVth Consultative Meeting by France and Australia for a comprehensive Convention for the Protection of the Antarctic Environment which would establish Antarctica as a natural reserve, land of science; by the United States for comprehensive measures building on the components of the Antarctic Treaty system; by Chile on comprehensive measures, which include the development of the concept of Antarctica as a Special Conservation Area; by New Zealand for comprehensive measures constituting an integrated and binding environmental protection regime; and by Sweden relating to common elements for environmental protection;

Welcoming the further substantial progress made on the protection of the Antarctic environment and its dependent and associated ecosystems through the work of this Consultative Meeting including the adoption of Recommendation XV-3 on Waste Disposal; Recommendation XV-4 on the Prevention, Control and Response to Marine Pollution; Recommendation XV-5 on Environmental Monitoring in Antarctica; Recommendation XV-6 on New Sites of Special Scientific Interest; Recommendation XV-8 amending Article VIII of the Agreed Measures to provide for Management Plans for Specially Protected Areas (SPAs); Recommendation XV-9 on Development of improved descriptions and management plans for SPAs; Recommendation XV-10 on Establishment of Specially Reserved Areas; Recommendation XV-11 on Establishment of Multiple-use Planning Areas; Recommendation XV-14 and XV-15 on promotion of international scientific cooperation; Recommendation XV-17 on the Siting of Stations; Recommendation XV-19 on Charting of Antarctic waters; Recommendation XV-21 on Antarctic Ice and the Declaration on the Ozone Layer and Climate Change.

Acknowledging the need, in the light of the unique qualities of Antarctica and increasing human activities there, to ensure the effective implementation, coordination and further elaboration of the system of protection of the Antarctic environment and its dependent and associated ecosystems;

Recommend to their Government that:

1. They undertake as a priority objective the further elaboration, maintenance and effective implementation of a comprehensive system for the protection of the Antarctic environment and its dependent and associated ecosystems aimed at ensuring that human activity does not have adverse impacts on the Antarctic environment or its dependent or associated ecosystems or compromise the scientific, aesthetic or wilderness values of Antarctica.

2. To contribute to this objective, a Special Antarctic Treaty Consultative Meeting be held in 1990 to explore and discuss all proposals relating to the comprehensive protection of the Antarctic environment and its dependent and associated ecosystems.

3. In addressing the requirements of such a comprehensive system, they:

(a) have regard to the principles for the protection of the Antarctic environment and its dependent and associated ecosystems already established under the Antarctic Treaty system and shall consider the need to elaborate further, expand and supplement those principles;

(b) review the existing body of measures for the protection of the Antarctic environment and its dependent and associated ecosystems in order, inter alia, to:

(i) identify those measures which should be updated, strengthened or otherwise improved;

(ii) identify areas where the existing measures should be supplemented;

(iii) consider the nature of the legal obligations contained in existing measures and the need, as necessary, to state those obligations with greater precision;

(iv) make provision for the promotion of research related to environmental management decisions;

(v) promote the establishment of procedures for assessing the possible impact of human activities on the Antarctic environment and its dependent and associated ecosystems in order to provide for informed decision-making as to their acceptability;

(vi) promote the establishment of procedures to monitor the effectiveness and adequacy of environmental protection measures;

(vii) consider the role of an information and data base for the effective implementation, revision and extension of environmental protection measures;

(c) consider if and to what extent institutional arrangements may be necessary and the form or forms of the legal or other measures needed to ensure the maintenance, integration, consistency and comprehensiveness of the system of protection of the Antarctic environment and its dependent and associated ecosystems.

XV - 2

COMPREHENSIVE MEASURES FOR THE PROTECTION OF THE ANTARCTIC ENVIRONMENT AND DEPENDENT AND ASSOCIATED ECOSYSTEMS

The Representatives,

Recalling the adoption on 2 June 1988, by the Fourth Special Antarctic Treaty Consultative Meeting on Antarctic Mineral Resources of the Convention on the Regulation of Antarctic Mineral Resource Activities and the importance of the issue of liability;

Recommend to their Governments that:

A meeting be held in 1990 to explore and discuss all proposals relating to Article 8 (7) of the Convention on the Regulation of Antarctic Mineral Resource Activities.

XV - 3

HUMAN IMPACT ON THE ANTARCTIC ENVIRONMENT: WASTE DISPOSAL

The Representatives,

Recalling Article II of the Antarctic Treaty and Recommendations VI-4, VIII-11, XII-4, and XIII-4;

Reaffirming the commitment of Consultative Parties to take measures to reduce the amount of wastes generated in Antarctica and to minimize the impact of wastes on the Antarctic environment, giving due consideration to the need to avoid detrimental effects on dependent or associated ecosystems outside the Antarctic Treaty Area;

Recognizing that the Antarctic derives much of its scientific importance from its uncontaminated condition;

Recognizing further that the support of science has an impact on the Antarctic environment which it is impractical to eliminate completely, but which, by good management can be limited;

Noting that the increasing level and complexity of Antarctic operations have increased the quantity and variety of wastes produced, but that improvements in logistics and technology have increased the capacity to minimize wastes and their environmental impacts;

Recognizing further that different environments, scales of operation, and logistic infrastructures will require different approaches to waste management, and that further technical developments can be expected to provide new solutions to waste management problems;

Noting with appreciation the work of the Scientific Committee on Antarctic Research (SCAR) in response to Recommendation XIII-4, which invited National Antarctic Committees to undertake a comprehensive review of the waste disposal aspects of the Annex to Recommendation VIII-11, and to offer scientific advice regarding waste disposal procedures and standards that it is desirable and practical to achieve at coastal and inland stations and field camps;

Desiring to revise the waste disposal aspects of the Code of Conduct annexed to Recommendation VIII-11 to take account of the recommendations of SCAR;

Recommend to their Governments that they adopt the following practices and take measures within their competence necessary to ensure compliance with them;

General obligation

1. The amount of wastes produced, or disposed of, in Antarctica shall be reduced to the maximum extent possible so as to minimize impact on the Antarctic environment and minimize interference with scientific research, or other legitimate uses of the Antarctic.

Waste Management Planning

2. Each Government carrying out Antarctic activities shall establish a waste disposal classification as a basis for recording wastes and to facilitate studies aimed at evaluating the environmental impacts of operational and scientific activity. Wastes produced may be classified as sewage and domestic liquid wastes (Group 1); other liquid wastes and chemicals, including fuels and lubricants (Group 2); solids to be combusted (Group 3); other solid wastes (Group 4); and radioactive materials (Group 5). Source classification codes, which represent individual processes or functions logically associated with points of waste creation, may be used in auditing studies.

3. Each Government carrying out Antarctic activities shall, in respect of those activities, prepare and annually update:

(a) plans for waste management (including waste reduction, storage and disposal), specifying for each vessel (other than small boats that are part of the operations of fixed sites or of vessels);

(i) programs for cleaning up existing waste disposal sites and abandoned work sites;

(ii) current and planned waste management arrangements;

(iii) current and planned arrangements for analyzing the environmental effects of Antarctic waste and waste management systems; and

(iv) other efforts to minimize any environmental effects of wastes and waste management.

(b) an inventory of locations of past activities (such as traverses, fuel depots, field bases, crashed aircraft) as far as is practicable, before the information is lost, so that such locations can be taken into account in planning future scientific programs (e.g. snow chemistry, pollutants in lichens, ice core drilling etc.).

4. Each Government carrying out Antarctic activities shall include the waste management plans referred to in paragraph 3 (a) above in the annual exchanges of information in accordance with Article III and VII of the Antarctic Treaty and related Recommendations under Article IX of the Treaty. The formats of such exchanges shall be determined by each Government pending development of standardized formats. They shall also exchange the inventories referred to in paragraph 3 (b) above.

5. Each Government carrying out Antarctic activities shall ensure that its national Antarctic operators designate a waste management official to develop and monitor waste management plans. In the field, this responsibility shall be delegated to an appropriate person at each site.

6. Those carrying out activities in Antarctica shall ensure that members of their expeditions receive training designed to limit the impact of their operations on the Antarctic environment and to inform them of required practices.

7. Pesticides, polychlorinated byphenyls (PCBs), non-sterile soil or polystyrene beads, chips or similar forms of packaging shall not be sent to the Antarctic. The use of poly-vinyl chloride (PVC) products in packaging shall be discouraged.

8. Those carrying out activities in Antarctica shall ensure that their expeditions to Antarctica are advised of any PVC products being provided.

9. Each Government shall establish a long-term program to remove existing abandoned fuel drums and fuel, where such removal is practical. Such programs shall identify for clean up at the first opportunity those drum sites where the transport equipment which delivered the drums is no longer available in the same area.

10. Waste compaction, storage and incineration facilities shall be incorporated in the design and construction of ships engaged in or supporting Antarctic programs.

Waste Disposal

11. The following wastes shall be removed from the Antarctic Treaty area:

(a) radio-active materials;

(b) electrical batteries (including lead/acid, dry cell and other types);

(c) fuel, both liquid and solid; and

(d) wastes containing high levels of heavy metals or harmful persistent compounds.

12. The following wastes shall be removed from the Antarctic Treaty area unless they are incinerated in equipment which neutralizes the harmful emissions that would otherwise be produced:

(a) poly-vinyl chloride (PVC), polyurethane foam, polystyrene foam, rubber and lubricating oils which contain additives that are widely recognized as products that could produce harmful emissions;

(b) all other plastic wastes, including those of unknown composition.

13. The following wastes shall be removed from the Antarctic Treaty area to the maximum extent practicable:

(a) liquid wastes, other than sewage and domestic liquid wastes;

(b) solid, non-combustible wastes; and

(c) fuel drums.

14. The following wastes shall be removed from Antarctic Treaty area unless incinerated, autoclaved or otherwise treated to be made sterile:

(a) residues of introduced animal carcasses;

(b) cultures of micro-organisms; and

(c) introduced avian products.

15. Combustible wastes, not removed from the Antarctic Treaty area, shall be burnt in incinerators designed to reduce harmful emissions to the maximum extent practicable.

16. All open burning of wastes shall be phased out. Pending the completion of such phase-out, when it is necessary to dispose of wastes by open burning:

(a) allowance shall be made for the wind and the type of wastes to be burnt to limit, as far as practicable, particulate deposition on land and to avoid such deposition over sensitive areas; and

(b) wastes to be burnt shall be stored in such a way as to prevent their dispersal by wind, or access and dispersal by scavengers.

17. All wastes to be removed from the Antarctic Treaty area, or otherwise disposed of, shall be stored in such a way as to prevent their dispersal by wind or access and dispersal by scavengers.

18. Solid non-combustible wastes, which cannot be removed to land disposal sites outside the Antarctic Treaty area and which are to be disposed of at sea, shall only be disposed of at selected dump sites in deep waters,

within or outside the Antarctic Treaty area and only in accordance with the International Convention for the Prevention of Marine Pollution by the Dumping of Wastes and other Matter (London Dumping Convention), as well as any other relevant international agreements.

19. Dumping of any other wastes at sea shall be carried out in accordance with the London Dumping Convention.

20. Sewage, chemical wastes and, to the maximum extent practicable, domestic liquid wastes shall not be disposed of onto ice free land. Sewage and domestic liquid wastes may be discharged directly into the ocean, provided that:

(a) such discharge be located, wherever practicable, where conditions exist for rapid dispersal;

(b) large quantities of such wastes (generated by approximately 30 individuals or more), receive at least primary treatment, such as maceration; and

(c) consideration be given to the advantages of treating very large quantities through systems, such as Rotating Biological Contractor Systems, to reduce biological oxygen demand (BOD) and suspended solids.

21. Vessels engaged in supporting Antarctic activities that are not fitted with incinerator facilities shall, to the maximum extent practicable, stockpile waste, excluding untreated sewage and domestic effluents, for appropriate disposal at stations, bases, deep waters sites or outside of the Antarctic Treaty area, provided that such wastes may be disposed of at stations or bases in Antarctica only in accordance with these practices, and at sea only in accordance with relevant Antarctic Treaty recommendations, the London Dumping Convention and any other relevant international agreements. Any incineration of ship-board wastes in the Antarctic Treaty area shall be conducted in incinerators of the type which are designed to reduce harmful emissions to the maximum extent practicable.

22. Those carrying out activities in Antarctica shall to the maximum extent practicable clean up the waste disposal sites and abandoned work sites of their Antarctic activities.

23. Wastes generated at inland stations shall be removed from the area of such stations to the maximum extent practicable for disposal in accordance with the practices set out in this Recommendation. Where this is not practicable, such wastes shall be concentrated in deep ice pits. In planning the location of inland stations where deep ice pits are the only practicable alternative, sites on known ice flow lines which terminate at ice-free areas or in areas of high ablation shall be avoided.

24. Wherever practicable, wastes generated at field camps shall be removed to their supporting stations, bases or ships for disposal in accordance with the practices set out in this Recommendation.

Procedures

25. These practices shall be kept under continuing review so as to ensure that they are up-dated as necessary to reflect improvements in waste disposal technology and procedures and to ensure maximum protection of the Antarctic environment. To this end it would be desirable for SCAR and the Managers of National Antarctic Programs to continue to consider problems, prospects and opportunities for cooperation in Antarctic waste management and to provide advice on appropriate steps that may be taken.

26. Governments should ensure that their nationals and vessels are subject to measures governing waste disposal in Antarctica that are no less effective in affording protection of the environment than those applicable to their nationals and vessels outside Antarctica. Further, nothing in these practices shall be interpreted as replacing national environmental standards applicable to Antarctic activities, where such standards are stricter than those contained in these practices; nor shall any provision in these practices be interpreted as limiting governments from adopting stricter standards.

27. These practices shall not be interpreted or implemented in such fashion as to endanger human life.

XV - 4

HUMAN IMPACT ON THE ANTARCTIC ENVIRONMENT: PREVENTION, CONTROL, AND RESPONSE TO MARINE POLLUTION

The Representatives,

Recalling Recommendations IX-6 and X-7 on oil contamination of the Antarctic marine environment;

Recognizing the special characteristics of the Antarctic Treaty area and the particularly hazardous nature of the area for vessel operations;

Recognizing further that the Antarctic derives much of its scientific importance from its uncontaminated condition;

Reaffirming their commitment to the avoidance and reduction of the contamination of the sea by oil and other pollutants;

Noting the framework provided by the 1982 United Nations Convention on the Law of the Sea in its Part XII and other relevant international agreements for the protection and preservation of the marine environment;

Bearing in mind the need to take measures relating to the design, construction, manning, and equipment of vessels engaged in or supporting Antarctic operations to avoid marine pollution from vessels;

Recognizing further the importance of the expeditious exchange of information on weather and ice conditions in the Antarctic Treaty area and with respect to accidents and emergency response efforts;

Mindful of the need for accurate and up-to-date charting of the Antarctic Treaty area; and

Acknowledging the value of cooperation directly and through appropriate international organizations in efforts to avoid and respond to marine pollution incidents;

Recommend to their Governments that:

1. They approve and take measures within their competence necessary to ensure compliance with:

(a) a prohibition within the Antarctic Treaty area on all intentional discharges, including oil, from vessels into the marine environment;

(b) a prohibition within the Antarctic Treaty area on disposal from vessels into the marine environment of all plastics and garbage other than food wastes, provided that disposal of food wastes should be made as far as practicable from land, but in no event within 12 nautical miles of land or ice shelves; and

(c) a prohibition within the Antarctic Treaty area on discharge of sewage from vessels within 12 nautical miles of land or ice shelves.

In implementing these provisions, they give due consideration to the need to avoid detrimental effects on dependent or associated ecosystems outside the Antarctic Treaty area.

2. They take measures within their competence necessary to ensure compliance by all their vessels engaged in or supporting Antarctic operations with the relevant provisions of the following conventions:

(a) the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972 (the London Dumping Convention);

(b) the International Convention for the Prevention of Pollution from Ships, 1973, and the Protocol of 1978 relating thereto, with Annexes, I, II, III, and V (MARPOL 73/78);

(c) the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers with Annex, 1978, (the STCW Convention);

(d) the International Convention for the Safety of Life at Sea, 1974, and the Protocol of 1978 relating thereto (SOLAS);

(e) the International Convention on Load Lines, 1966 (the Load Lines Convention); and

(f) the Convention on the International Regulations for Preventing Collisions at Sea, 1972 (COLREGS).

3. When such vessels are warships, naval auxiliaries or other state-owned or state-operated vessels used, for the time being, only on government non-commercial service, they shall take appropriate measures, not impairing operations or operational capabilities of such vessels, to ensure that they act in a manner consistent so far as is reasonable and practicable with these provisions.

4. If they are not parties, they become parties to the conventions listed in paragraph 2 (a) - (f).

5. Those that are parties to MARPOL 73/78 consider taking actions within the International Maritime Organization (IMO) to secure designation of the waters south of 60 degrees South Latitude as a special area under Annexes I and V of that Convention, provided that the establishment of reception facilities otherwise called for in these Annexes not be considered either necessary or desirable in the Antarctic Treaty area.

6. They establish contingency plans for marine pollution response in Antarctica, including contingency plans for vessels operating in the Antarctic Treaty area, particularly vessels carrying oil. To this end they shall:

(a) cooperate in the formulation and implementation of such plans and in responding to pollution emergencies in Antarctica; and

(b) draw on the advice of the IMO and other international organizations, as appropriate.

7. They convene, in accordance with Recommendation IV-24, a meeting of experts to consider and provide advice on the establishment of contingency plans for marine pollution response and additional requirements to reduce and prevent pollution of the Antarctic marine environment, giving due consideration to the need to avoid detrimental effects on dependent and associated ecosystems outside the Antarctic Treaty area.

8. They keep under continuing review measures to reduce and prevent pollution of the Antarctic marine environment.

XV - 5

HUMAN IMPACT ON THE ANTARCTIC ENVIRONMENT: ENVIRONMENTAL MONITORING IN ANTARCTICA

The Representatives,

Recognizing that, because of its relatively pristine state, Antarctica provides an important natural laboratory to obtain baseline information on Antarctic environments and for detecting and monitoring some of the effects of human activities on the global environments and ecosystems upon which the welfare and survival of the human species depend;

Recognizing also that scientific research, related logistic support activities, tourism, natural resources exploration and development, and other human activities in Antarctica could have local, regional or global environmental effects, or compromise the scientific value of Antarctica;

Recalling the Scientific Committee on Antarctic Research (SCAR) response to Recommendation XII-3 and Recommendation XIV-2, which call upon the Antarctic Treaty Consultative Parties to establish programs for detecting and monitoring the effects of human activities on key components of Antarctic ecosystems;

Conscious that determining cause-effect relationships between certain human activities and observed changes in Antarctic environments will require knowledge of natural variation in Antarctic environments and accurate records of such things as the types and quantities of fuels used to supply heat and light to Antarctic stations and to operate aircraft and land vehicles in Antarctica;

Aware of the ecosystem monitoring program being developed to help meet the objectives of the Convention on the Conservation of Antarctic Marine Living Resources;

Desiring to identify and initiate cooperative, long-term monitoring programs necessary to verify the predicted effects and to detect and quantify the possible unforeseen effects of human activities on the Antarctic environment; and

Recognizing that the design and implementation of integrated, comprehensive, and cost-effective environmental monitoring programs in Antarctica serve both scientific and environmental protection purposes;

Recommend to their Governments that:

1. They encourage their national Antarctic programs, individually and collectively, to continue and, as appropriate, expand programs in Antarctica aimed at detecting and monitoring global environmental change, including its effects on the ozone layer over Antarctica, effects on Antarctic terrestrial, marine, and atmospheric environments and dependent and associated ecosystems as well as effects on Antarctic living resources.

2. They undertake, individually and collectively, to establish environmental monitoring programs to verify the predicted effects and to detect the possible unforeseen effects on Antarctic environments and living resources of activities in the Antarctic Treaty area, including:

(a) waste disposal;

(b) contamination by oil or other hazardous or toxic substances;

(c) construction and operation of stations, field camps, and related ship, aircraft and other logistic support facilities;

(d) conduct of science programs;

(e) recreational activities, and

(f) those affecting the purposes of designated protected areas.

3. They take such steps as necessary to maintain accurate records of the activities of their national programs in Antarctica, including, among other things, maintaining accurate records of the types and quantities of fuels and other materials transported to and used to support their national programs in Antarctica, the types and quantities of materials subsequently removed from Antarctica, and the types and quantities of materials disposed of in Antarctica by various means, bearing in mind Recommendation XV-3.

4. They convene, in accordance with Recommendation IV-24, a meeting of experts to consider and provide advice on:

(a) The types of cooperative, long-term monitoring programs that would be useful for detecting, quantifying, monitoring, and determining the likely causes of observed changes in air quality, snow and water quality, and other key features of Antarctic environments and living resources;

(b) on the methods that should be used to collect, report, store, exchange, and analyze needed data; and

(c) on where and how frequently various environmental parameters should be measured.

To this end, they invite SCAR through their national committees, to consider and provide advice on the above matters.

5. They exchange information and establish cooperative working relations with those Specialized Agencies of the United Nations and other international organizations having a scientific or technical interest in Antarctica that are engaged in the planning and implementation of related scientific research and environmental monitoring programs.

XV - 6

ANTARCTIC PROTECTED AREA SYSTEM: NEW SITES OF SPECIAL SCIENTIFIC INTEREST

The Representatives,

Recalling, Recommendations VIII-3 and VIII-4;

Noting that management plans have been prepared and approved by the Scientific Committee on Antarctic Research (SCAR) for certain Sites of Special Scientific Interest additional to those already designated;

Considering that it would be advantageous to gather experience of the practical effect of the management plans prepared for these sites;

Recommend to their Governments that they voluntarily take account of the management plans, annexed to this Recommendation, for the following sites:

Site No 29: Ablation Point-Ganymede Heights, Alexander Island.

Site No 30: Avian Island, North-West Marguerite Bay.

Site No 31: Mount Flora, Hope Bay, Antarctic Peninsula.

ANNEX TO RECOMMENDATION XV-6

SITE OF SPECIAL SCIENTIFIC INTEREST No 29 ABLATION POINT-GANYMEDE HEIGHTS, ALEXANDER ISLAND

1. GEOGRAPHICAL LOCATION

The Ablation Valley-Ganymede Heights massif and its valley systems (70°49′S, 68°25′ W) is situated on the mid-east coast of Alexander Island overlooking the shelf ice of George VI Sound and about 120 km from open sea to the north.

2. MANAGEMENT PLAN

(i) Description of site

The Site extends from lat. 70°45′ to lat. 70°55′ and from long. 68°40′W to the George VI Sound coastline.

The largely ice-free area comprises three main and two lesser valley systems separated by often precipitous ridges and plateaux 650-760 m high. The site is bounded by Grotto Glacier to the north, Jupiter Glacier to the south and west, and George VI Sound to the east. The area extends 18 km from north to south and 10 km from east to west, rising to a maximum altitude of 1070 m.

(ii) Reason for designation

The Site represents one of the largest ablation areas in West Antarctica. It has a complex geology, the main rock types being conglomerates, arkosic sandstones and shales with subordinate pebbly mudstones and sedimentary breccias. The base of the succession is formed of a spectacular melange, including large blocks of lava and agglomerate. This outcrops on the valley floors and at the base of several cliffs. It possesses a wide range of geomorphological features including raised beaches, moraine systems and patterned ground. There are several permanently frozen freshwater lakes and many ice-free ponds supporting a diverse flora (including aquatic briophytes) and fauna. There are a few major streams and many smaller ones in summer. The vegetation is generally sparse, with a unique moss and liverwort-dominated community type being restricted to "oases" where water issues from otherwise dry barren hillsides. The terrestrial and freshwater ecosystems are vulnerable to human impact and therefore merit protection from uncontrolled human presence.

(iii) Outline of research

Several detailed geological, geomorphological, glaciological and limnological studies have been made by British Antarctic Survey scientists within the Site and it is proposed to undertake terrestrial ecological research throughout the area.

(iv) Date of expiry of designation

31 December 1999

(v) Access points

None specified, but the most convenient point is by landing on Ablation Lake. Access is not possible from the shelf ice of Georges VI Sound because of the dangerous and variable condition of the pressure ice.

(vi) Pedestrian and vehicular routes

Vehicles may be used on land with the utmost care, avoiding areas of vegetation, patterned ground and streams whenever possible. Pedestrians should avoid, as far as possible, areas of oasis vegetation, patterned ground, streams and lake margins.

(vii) Other kinds of scientific investigations which would not cause harmful interference

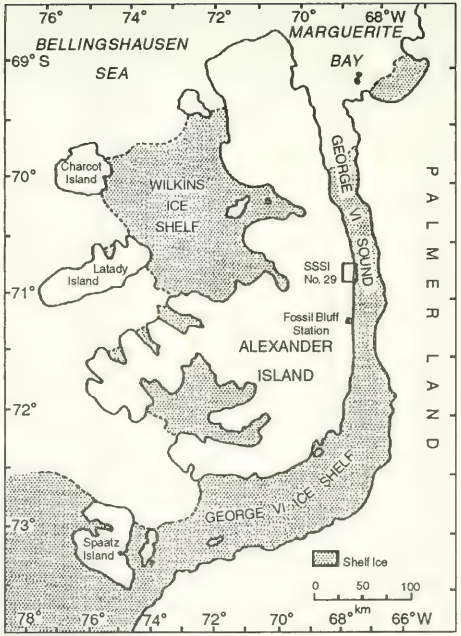
None specified.

(viii) Scientific sampling

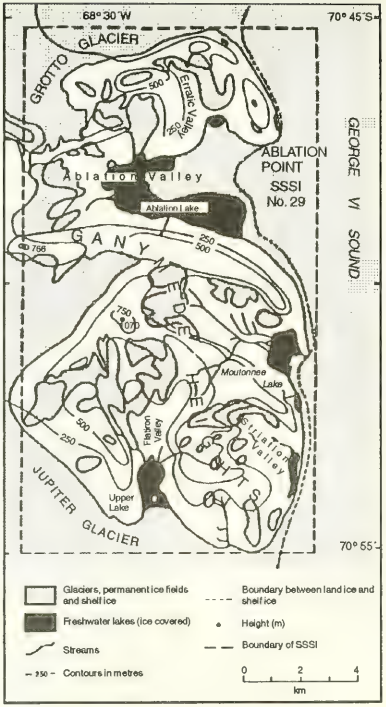
Scientific sampling within the Site should be minimal and restricted to that which can be accomplished as far as possible without introducing new organisms, including micro-organisms, and without disturbing the environment.

(ix) Other restraints

All materials, including combustibles, introduced into the Site should be removed after each visit. Solid human waste should be disposed of into the sea through tide cracks.



SITE OF SPECIAL SCIENTIFIC INTEREST No 29



SITE OF SPECIAL SCIENTIFIC INTEREST No. 30
AVIAN ISLAND, NORTH-WEST MARGUERITE BAY

1. GEOGRAPHICAL LOCATION

Avian Island (67°46′SO., 68°54′W.) lies c. 1 km south of the south-west tip of Adelaide Island in north-west Marguerite Bay;

2. MANAGEMENT PLAN

(i) Description of site

The Site consists of Avian Island together with its littoral zone. It is 1.45 km long by 0.8 km at its widest, and rises to about 45 m altitude. It is largely ice-free in summer and there are several shallow melt pools, the largest being on the eastern raised beach area. Excluded from the Site is the north-western corner of the island where there is a small refuge hut; this area is bounded by a line extending from the north-east end of the southern of two long inlets at the north-west of the island, due north over the western slope of a low rocky hill, to the north coast of the island. All land to the west of this line is not included in the Site.

(ii) Reason for designation

The Site is exceptional for its abundance and diversity of breeding seabirds (e.g. Adelie penguins, Pygoscelis adeliae, about 40,000 pairs; blue-eyed shags, Phalacrocorax atriceps, about 300 pairs; southern giant petrels, Macronectes giganteus, about 200 pairs; Dominican gulls, Larus dominicanus, about 60 breeding pairs, total adult birds about 200; south polar skuas, Catharacta maccormicki, 30 breeding pairs, petrels, Oceanites oceanicus, several hundred pairs). The giant petrel colony is the farthest south known breeding population, while the blue-eyed shags are very close to the southern limit of their breeding range. Avian Island is therefore of outstanding ornithological importance and merits protection from unnecessary human disturbance.

(iii) Outline of research

None currently proposed but protection is justified to safeguard the avian populations from potential tourist visits and other disturbance, for the reasons outlined in (ii).

(iv) Date of expiry of designation

31 December 1999.

(v) Access points

None specified

(vi) Pedestrian and vehicular routes

Vehicles should not be used within the Site. No pedestrian routes need to be marked, but every care must be taken to avoid unnecessary disturbance of the avifauna. No helicopter landings should be made anywhere on the island.

(vii) Other kinds of scientific investigations which would not cause harmful interference

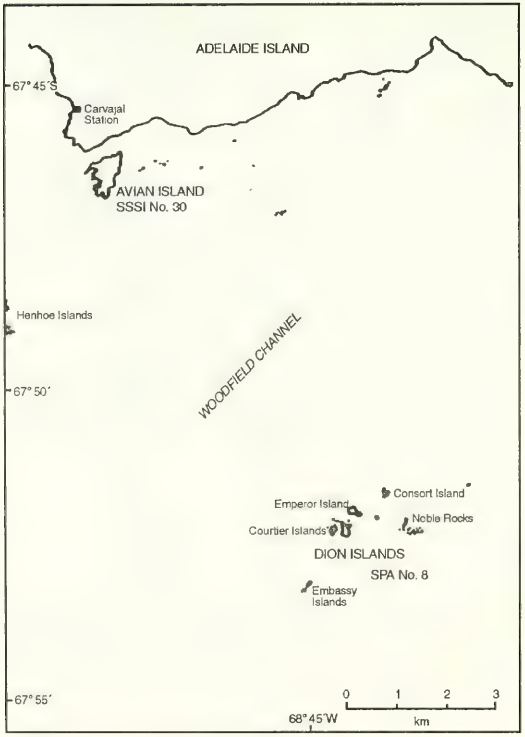
None specified.

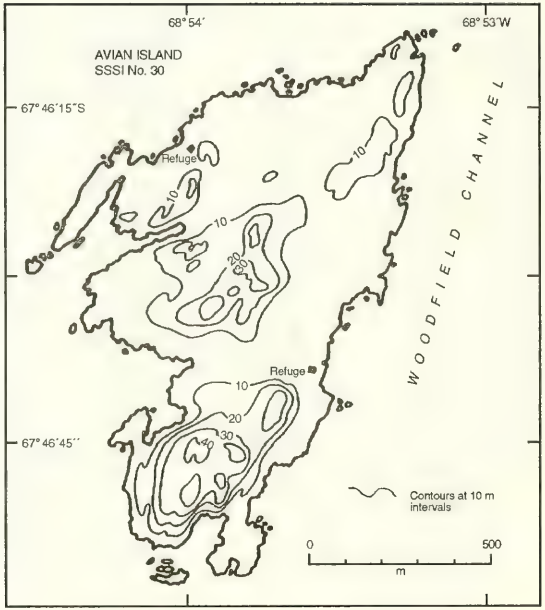
(viii) Scientific sampling

All activities involving banding, capture, killing, etc. of any birds must conform with the Agreed Measures for the Conservation of Antarctic Fauna and Flora. Any other sampling should be restricted to the minimum required for the purpose of the respective studies.

(ix) Other restraints

None specified.


ADELAIDE ISLAND
67° 45´S
Carvajal Station
AVIAN ISLAND
SSSI No. 30
Henhoe Islands
67° 50´
WOODFIELD CHANNEL
Consort Island
Emperor Island
Noble Rocks
Courtier Islands
DION ISLANDS
SPA No. 8
Embassy Islands
67° 55´
68° 45´W
0 1 2 3
km


68° 54´
68° 53´W
AVIAN ISLAND
SSSI No. 30
67° 46´15´´S
Refuge
10
20
30
40
WOODFIELD CHANNEL
Refuge
67° 46´45´´
Contours at 10 m intervals
0
500
m

SITE OF SPECIAL SCIENTIFIC INTEREST No. 31
MOUNT FLORA, HOPE BAY, ANTARCTIC PENINSULA

1. GEOGRAPHICAL LOCATION

Mount Flora (63°25′S, 57°01′ W) is situated about 1 km south of Hope Bay and about 1 km south-east of the Argentine station Esperanza, at the northern tip of Trinity Peninsula.

2. MANAGEMENT PLAN

(i) Description of site

The Site comprises the upper slopes of Mount. Flora above 250 m altitude where the plant-beds of sandstone and siltstone outcrops as a distinct black band between the lower band of conglomerates and light colored volcanic rocks which cap the mountain.

(ii) Reason for designation

The Site is of exceptional scientific importance for its rich fossil flora. It was one of the first fossil floras discovered in Antarctica and has played a significant stratigraphic role in deducing the geological history of the Antarctic Peninsula. Its long history as an easily accessible site and the large amount of fossilferous debris occurring in scree has made it vulnerable to souvenir collectors, and the amount of material available for serious research has been considerably depleted. For this reason the Site merits urgent protection.

(iii) Outline of research

None specified. Designation as an SSSI is justified by the exceptional scientific interest of the site and the vulnerability of its fossils to over collecting.

(iv) Date of expiry of designation

31 December 1999.

(v) Access points

None specified.

(vi) Pedestrian and vehicular routes

None specified.

(vii) Other kinds of scientific investigations which would not cause harmful interference.

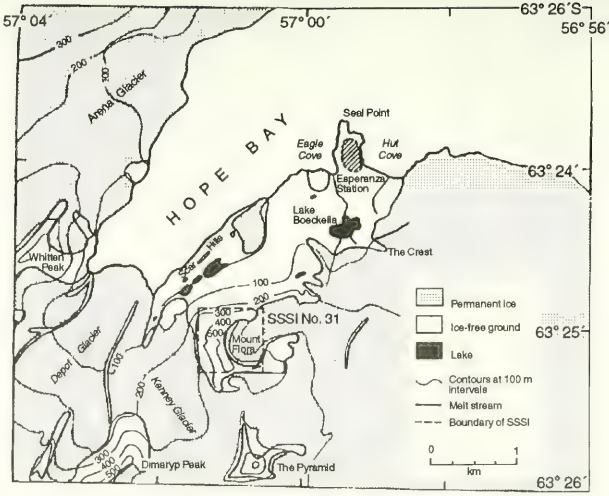
None specified

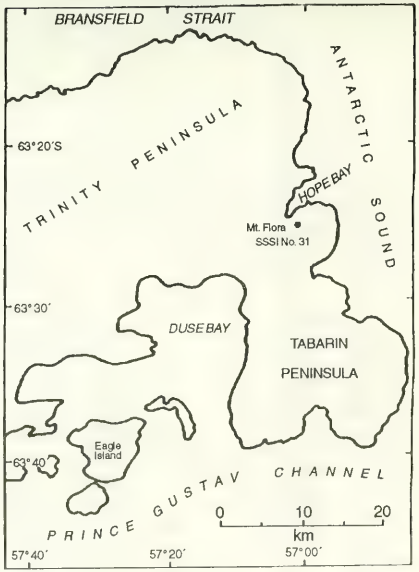
(viii) Scientific sampling

The collection of fossilferous rocks should be restricted to the minimum required for the proposed research studies. Unnecessary destruction of in situ rock and boulders should be avoided.

(ix) Other restraints

None specified.


57° 04′
57° 00′
63° 26′S
56° 56′W
HOPE BAY
Arena Glacier
Seal Point
Eagle Cove
Hut Cove
Esperanza Station
Lake Boeckella
63° 24′
The Crest
Whitten Peak
Depot Glacier
Kenney Glacier
SSSI No. 31
Mount Flora
Dimaryp Peak
The Pyramid
63° 25′
63° 26′
Permanent ice
Ice-free ground
Lake
Contours at 100 m intervals
Melt stream
Boundary of SSSI
0
1
km


BRANSFIELD STRAIT
ANTARCTIC SOUND
TRINITY PENINSULA
63° 20′S
HOPE BAY
Mt. Flora
SSSI No. 31
63° 30′
DUSE BAY
TABARIN PENINSULA
Eagle Island
63° 40′
PRINCE GUSTAV CHANNEL
0
10
20
km
57° 40′
57° 20′
57° 00′

XV-7

ANTARCTIC PROTECTED AREA SYSTEM:

REDESIGNATION OF SPECIALLY PROTECTED AREA, No. 11 CAPE SHIRREFF, AS SITE OF SPECIAL SCIENTIFIC INTEREST No. 32

The Representatives,

Recalling Recommendations III-VIII, VIII-3 and VIII-4;

Conscious of the need to facilitate research into important aspects of the Antarctic marine ecosystem;

Noting that there are certain long-term research programmes involving support activities which may not be appropriately provided in a Specially Protected Area, but which need not endanger the Antarctic ecosystem or its components;

Noting further that the degree of environmental protection specified in the management plan of a Site of Special Scientific Interest need not be less than that provided in a Specially Protected Area;

Aware that a management plan for a Site of Special Scientific Interest at Cape Shirreff has been prepared and approved by the Scientific Committee on Antarctic Research (SCAR);

Recommend to their Governments that:

1. The inclusion in Annex B, Specially Protected Areas, of the Agreed Measures for the Conservation of Antarctic Fauna and Flora of Recommendation IV-11 (Specially Protected Areas: Cape Shirreff) be terminated.

2. The number 11 in Annex B of the Agreed Measures should not be used for another Specially Protected Area.

3. They voluntarily take account of the management plan, annexed to this Recommendation, for Site of Special Scientific Interest Nº 32, Cape Shirreff, Livingston Island, South Shetland Islands.

ANNEX TO RECOMMENDATION XV-7

SITE OF SPECIAL SCIENTIFIC INTEREST No. 32 CAPE SHIRREFF, LIVINGSTON ISLAND, SOUTH SHETLAND ISLANDS

1. GEOGRAPHICAL LOCATION

Cape Shirreff is a low, ice-free peninsula towards the western end of the north coast of Livingston Island, situated at latitude 62°27′S., longitude 60°47′W., between Barclay Bay and Hero Bay. Telmo Island is the largest of a small group of ice-free rock islets, approximately 2 km west of Cape Shirreff.

2. MANAGEMENT PLAN

(i) Description of site

The Site includes the entire area of the Cape Shirreff peninsula north of the glacier ice tongue margin, and most of the Telmo Island group (see map).

(ii) Reason for Designation

The presence of both Antarctic fur seal and penguin breeding colonies, and of krill fisheries within the foraging range of these species, make this a critical site for inclusion in the ecosystem monitoring network being established to help meet the objectives of the Convention on the Conservation of Antarctic

Marine Living Resources. The purpose of the designation is to allow planned research and monitoring to proceed, while avoiding or reducing, to the greatest extent possible, other activities which could interfere with or affect the results of the research and monitoring programme or alter the natural features of the Site.

(iii) Outline of research

Long-term studies are being planned better to assess and monitor the feeding ecology, growth and condition, reproductive success, behavior, vital rates, and abundance of pinnipeds and seabirds that breed in the area. The results of these studies will be compared with environmental data, offshore sampling data, and fishery statistics to identify possible cause-effect relationships.

(iv) Date of expiry of designation

31 December 1999

(v) Access points

The Cape Shirreff part of the Site may be entered at any point where pinniped or seabird rookeries are not present on or near the beach. Access to the islands in the Telmo group is unrestricted but should be at the least densely populated areas and cause minimal disturbance to the fauna. Access for other than the aforementioned types of research should avoid disturbing pinnipeds and seabirds.

(vi) Pedestrian and vehicular routes

Boats, helicopters, fixed-winged aircraft and land vehicles should avoid the Site except for operations directly supporting authorized scientific activities. During these operations, boats and aircraft should travel routes that avoid or minimize disturbance of pinnipeds and seabirds. Land vehicles should not be used except to transport needed equipment and supplies to and from the field camp to be established. As far as possible, establishment and resupply of the field camp should be done before or after the pinniped and seabird breeding seasons. Pedestrians should not walk through wildlife population areas, especially during the breeding season, or disturb other fauna or flora except as necessary to conduct authorized research.

(vii) Other kinds of scientific investigations which would not cause harmful interference

Geological, glaciological, and other studies which can be done outside of the pinniped and seabird breeding seasons, and which will not damage or destroy pinniped or seabird breeding areas, or access to those areas, would not adversely affect the planned assessment and monitoring studies. Likewise, the planned assessment and monitoring studies would not be affected adversely by periodic biological surveys or studies of other species which do not result in killing, injuring or disturbing pinnipeds or seabirds, or damage or destroy pinnipeds or seabird breeding areas or access to those areas.

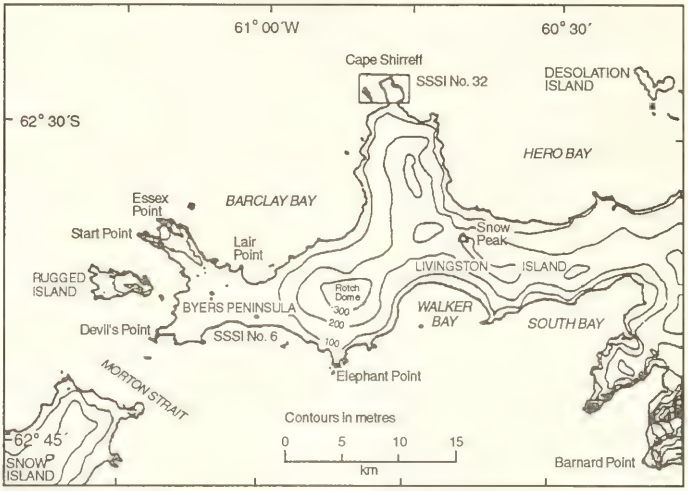
(viii) Scientific sampling

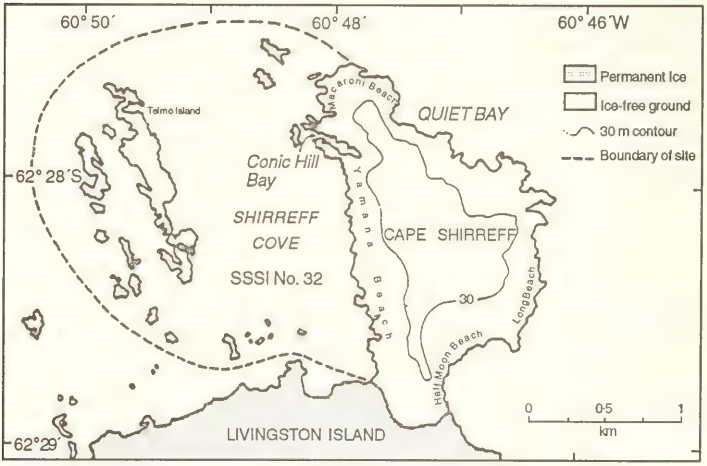
Killing, capturing, handling, photographing, and taking eggs, blood, or other biological samples from pinnipeds and seabirds should be limited to that necessary to characterize and monitor individual and population parameters that may change in detectable ways in response to changes in food availability or other environmental factors. Sampling should be done and reported in accordance with: 1) the Agreed Measures for the Conservation of Antarctic Fauna and Flora, and 2) the Convention for the Conservation of Antarctic Seals.

(ix) Other restraints

(a) Only structures directly supporting authorized scientific research and monitoring programmes may be built within the Site to house research personnel and their equipment, and shall be occupied only within the period 1 September to 1 June.

(b) All non-burnable or non-biodegradable materials brought to the Site should be removed when no longer in use. Landfill disposal of non-biodegradable materials, and the burning of non-organic materials, is not permitted.


61° 00′W
60° 30′
Cape Shirreff
SSSI No. 32
DESOLATION ISLAND
62° 30′S
HERO BAY
Essex Point
BARCLAY BAY
Start Point
Lair Point
Snow Peak
LIVINGSTON ISLAND
RUGGED ISLAND
Rotch Dome
300
200
100
BYERS PENINSULA
WALKER BAY
SOUTH BAY
Devil's Point
SSSI No. 6
Elephant Point
MORTON STRAIT
Contours in metres
0 5 10 15
km
62° 45′
SNOW ISLAND
Barnard Point


60° 50′
60° 48′
60° 46′W
Permanent Ice
Ice-free ground
30 m contour
Boundary of site
Macaroni Beach
QUIET BAY
Telmo Island
Conic Hill Bay
62° 28′S
SHIRREFF COVE
CAPE SHIRREFF
SSSI No. 32
Yamana Beach
30
Long Beach
Half Moon Beach
0 0·5 1
km
62° 29′
LIVINGSTON ISLAND

XV - 8

ANTARCTIC PROTECTED AREA SYSTEM:

AGREED MEASURES FOR THE CONSERVATION OF ANTARCTIC FAUNA AND FLORA: AMENDMENT TO ARTICLE VIII

(MANAGEMENT PLANS FOR SPECIALLY PROTECTED AREAS)

The Representatives,

Noting that under Article VIII of the Agreed Measures:

(i) paragraph 1 provides for designation as Specially Protected Areas, "areas of outstanding scientific interest... in order to preserve their unique natural ecological system";

(ii) paragraph 2(c) provides that entry into a Specially Protected Area is prohibited except in accordance with a permit;

(iii) paragraph 4 provides that such "a permit shall have effect within a Specially Protected Area provided that:

(a) it was issued for a compelling scientific purpose which cannot be served elsewhere; and

(b) the actions permitted thereunder will not jeopardise the natural ecological system existing in that Area";

Noting further that Recommendation VII-2 urges that representative examples of the major Antarctic land and freshwater ecological systems shall be included in the series of Specially Protected Areas;

Desiring to provide for greater certainty in the interpretation of paragraph 4 by means of the application of management plans relevant to each Specially Protected Area;

Recognising that to be fully effective such Management Plans must be accorded the same status as the conditions in subparagraphs (a) and (b) of paragraph 4;

Recommend to their Governments that:

(i) the following subparagraph be added to paragraph 4 of Article VIII:

"and (c) the actions permitted thereunder are in accordance with any Management Plan accompanying the description of a Specially Protected Area";

(ii) subparagraph (a) be amended to remove the word "and"; and

(iii) the full stop at the end of subparagraph (b) be changed to a semicolon.

XV - 9

ANTARCTIC PROTECTED AREA SYSTEM:

DEVELOPMENT OF IMPROVED DESCRIPTIONS AND MANAGEMENT PLANS FOR SPECIALLY PROTECTED AREAS

The Representatives,

Recalling that:

(a) the purpose of Specially Protected Areas is to preserve both unique and representative examples of the natural ecological systems of areas which are of outstanding scientific interest; and

(b) the appropriate national authority of Antarctic Treaty Consultative Parties may issue permits authorizing its nationals to enter Specially Protected Areas for compelling scientific purposes which cannot be served elsewhere;

Noting that the descriptions of Specially Protected Areas in Annex B of the Agreed Measures for the Conservation of Antarctic Fauna and Flora do not provide detailed descriptions of the natural ecological systems and components thereof that the Protected Areas are intended to preserve;

Noting also that the descriptions of Specially Protected Areas do not indicate the types of activities that could or could not be carried out in the designated Specially Protected Areas without harming or damaging any of the components of the natural ecological systems that the areas are intended to preserve;

Recommend to their Governments that:

1. They review the descriptions of Specially Protected Areas in Annex B of the Agreed Measures and, for those Areas which they or their nationals had proposed be listed in the Annex, they provide a more detailed description of the natural ecological system that the Area is intended to preserve and a provisional Area management plan for consideration at the XVIth Antarctic Treaty Consultative Meeting;

2. Future proposals for designating Specially Protected Areas include:

(a) a clear description of the location and the key physical and biological features of the area to be protected, including a description of the markers and/or natural features that delineate the area;

(b) a map and/or photographs showing the boundaries and key features of the proposed Specially Protected Area;

(c) a detailed description of the key components of the unique natural ecological system intended to be preserved by designating the Area as a Specially Protected area;

(d) descriptions of the types of activities (including activities outside the Area) that could jeopardize any of the components of the unique ecological system intended to be preserved; and

(e) descriptions of steps that should be taken to avoid or minimize damage in cases where access to the area may be authorized for a compelling scientific purpose which cannot be served elsewhere;

(f) descriptions of measures necessary to ensure preservation of the area's unique or representative natural ecological systems.

3. They invite SCAR, through their national committees, to have regard to the preceding when considering proposals for Specially Protected Areas; and

4. They annually advise SCAR and the Antarctic Treaty Parties of any activities that they authorized to be conducted in Specially Protected Areas during the preceding year and that they expect to authorize in the next year.

XV - 10

THE ANTARCTIC PROTECTED AREA SYSTEM: ESTABLISHMENT OF SPECIALLY RESERVED AREAS (SRAs)

The Representatives,

Recognizing that the increasing number and scope of activities in the Antarctic Treaty area may reduce the unique scientific and other values of Antarctica;

Noting that the Agreed Measures for the Conservation of Antarctic Fauna and Flora established a mechanism to designate Specially Protected Areas to preserve the unique natural ecological systems of areas of outstanding scientific interest;

Noting also that neither the Agreed Measures nor other Recommendations adopted by the Antarctic Treaty Consultative Parties provide a specified mechanism for identifying and protecting areas of outstanding geological, glaciological, geomorphological, aesthetic, scenic, or wilderness value;

Recalling that Recommendation VII-2 calls upon the Antarctic Treaty Parties to include in the series of Specially Protected Areas listed in Annex B of the Agreed Measures:

(a) representative examples of the major Antarctic land and fresh water ecological systems;

(b) areas with unique complexes of species;

(c) areas which are the type locality or only known habitat of any plant or invertebrate species;

(d) areas which contain specially interesting breeding-colonies of birds or mammals; and

(e) areas which should be kept inviolate so that in the future they may be used for purposes of comparison with localities that have been disturbed by man;

Recommend to their Governments that:

1. They undertake a continuing review of the geographical features and uses of Antarctica and, as appropriate propose designating areas of outstanding geological, glaciological, geomorphological, aesthetic, scenic, or wilderness value as Specially Reserved Areas (SRAs).

2. Proposals for designation of Specially Reserved Areas shall be accompanied by a proposed management plan which shall include:

(a) a clear description of the location and the key features of the proposed SRA, including a description of the markers and/or natural features that delineate the area;

(b) a map and/or photographs showing the boundaries and key features of the proposed SRA;

(c) the rationale for the proposed listing;

(d) descriptions of the types of activities that could be conducted in or near the proposed SRA without jeopardizing the special values intended to be protected;

(e) descriptions of the types of activities (including activities outside the SRA) that could adversely affect the special values intended to be protected; and

(f) descriptions of steps that should be taken to minimize impacts in cases where access to the SRA is authorized;

3. In due course, they include in the series of Specially Reserved Areas representative examples of the major geological, glaciological, and geomorphological features of Antarctica, and representative examples of areas of outstanding aesthetic, scenic, and wilderness value.

4. Entry into Specially Reserved Areas be prohibited, except for the purposes authorized in the approved management plan for the area or in accordance with a permit issued by the appropriate national authority for a compelling scientific purpose which cannot be served elsewhere, and which will not adversely affect the natural features intended to be protected by the SRA.

5. They invite SCAR, through their national committees, the Commission for the Conservation of Antarctic Marine Living Resources, and, as appropriate, other components of the Antarctic Treaty system to review and comment on proposals before they are considered by the Consultative Parties.

6. They annually advise SCAR and each other of activities that they authorized to be conducted in Specially Reserved Areas during the preceding year, and that they expect to authorize in the following year.

XV - 11

ANTARCTIC PROTECTED AREA SYSTEM: ESTABLISHMENT OF MULTIPLE-USE PLANNING AREAS (MPAs)

The Representatives,

Desiring to protect and maintain the unique biological, geological, glaciological, geomorphological, ecological, scientific, historic, aesthetic, scenic and wilderness values of Antarctica;

Recalling Recommendation XIII-5 inviting the Scientific Committee on Antarctic Research (SCAR) to offer advice on the system of protected areas in the Antarctic;

Noting that SCAR's response to Recommendation XIII-5, provided in its report "The Protected Area System in the Antarctic", recommended among other things that the Antarctic Treaty Consultative Parties create an additional category of protected area where coordinated management of activities would minimize harmful environmental impacts so as not to detract from the values for which the area was designated;

Recalling the importance of preserving the freedom of scientific research guaranteed by the Antarctic Treaty;

Recommend to their Governments that:

1. They take cooperative action to ensure that ongoing and planned human activities in Antarctica, through their combined or cumulative effects, do not result in mutual interference or in adverse impacts upon the Antarctic environment.

2. As one means to this end, they designate, where appropriate, Multiple-Use Planning Areas (MPAs) to assist in coordinating human activities in those areas where such activities pose identified risks of mutual interference or cumulative environmental impacts.

3. The number and size of MPAs be kept to the minimum necessary to meet the objectives set forth in paragraphs 1 and 2.

4. Each Multiple-use Planning Area shall be designated pursuant to a management plan developed through consultations, as appropriate, among interested Parties and approved by the Antarctic Treaty Consultative Parties. Such plan shall, as appropriate, include:

(a) a description of the purposes and objectives of the management plan;

(b) a description of the area to which its provisions apply;

(c) a description of ongoing and planned human activities, including the operation of research stations and related logistics activities;

(d) identification of any Specially Protected Areas (SPAs), Sites of Special Scientific Interest (SSSIs), Specially Reserved Areas (SRAs), and Historic Monuments (HMs) within the MPA;

(e) a description of the environmental characteristics and features and subjects of current and planned scientific research, if any, threatened by interference by ongoing or planned human activities or their cumulative impacts;

(f) specific measures to avoid or minimize mutual interference and cumulative impacts, including where necessary measures applicable to:

(i) construction and operation of stations and related logistic support facilities;

(ii) vessel operations, including identification of areas which are unsafe for navigation, designation of safe anchorages and sea lanes or channels for safe access to stations;

(iii) small boat operations, including maintenance and discharge control, and identification of areas where operations should be prohibited (except for essential research);

(iv) aircraft and helicopter operations, including designation of safe landing areas, and identification of areas where operations below a designated altitude should be prohibited;

(v) vehicle operations, including maintenance and discharge controls and identification of areas which are unsafe or unsuitable for operation;

(vi) scientific research activities, including means to ensure the availability of up-to-date information about the nature and location of ongoing or planned field work, and means to prevent disturbance of organisms or features being studied by various investigators;

(vii) visitors, including designation of areas within which access by tourists or other visitors should be limited or prohibited, and/or as areas to which such access might be directed to obtain maximum benefit from exposure to the characteristics of the area;

(viii) information, including means to ensure that all individuals present or intending to be present within the MPA, are fully aware of the provisions of the management plan, as well as other relevant measures adopted by Consultative Parties (e.g. provisions governing access to scientific stations);

(ix) notification, as far in advance as possible, by each party of research and other activities which it or its nationals intend to carry out in the MPA, including copies of any necessary permits issued;

(x) annual reports by each party of activities it or its nationals carried out in the MPA management plan and any instances of possible violations of the management plan;

(g) provisions for periodically reviewing the plan to identify changes that may be necessary to take account of changing circumstances or better to accomplish their purposes.

5. They invite SCAR, through their national committees, the Commission for the Conservation of Antarctic Marine Living Resources, and, as appropriate, other components of the Antarctic Treaty system to review and comment on proposed management plans for Multiple-Use Planning Areas before designation is considered by the Consultative Parties.

6. They periodically review management plans to ensure that they are being implemented effectively and, as appropriate, approve proposed changes necessary to take account of changing circumstances or better to accomplish their purposes.

XV - 12

ANTARCTIC PROTECTED AREA SYSTEM: NEW HISTORIC SITES AND MONUMENTS

The Representatives,

Recalling Recommendations I-IX, V-4, VI-14, VII-9, XII-7 and XIII-16 and XIV-S.

Recommend to their Governments that the following historic monuments be added to the "List of Historic Monuments Identified and Described by the Proposing Government or Governments" annexed to Recommendation VII-9 and that thereafter they be accorded the respect and protection required by the Recommendations recalled above:

54. Richard E. Byrd Historic Monument, McMurdo Station, Antarctica (77°51′S., 166°40′E.). Bronze bust on black marble, 5 ft high x 2 ft square, on wood platform, bearing inscriptions describing the polar achievements of Richard Evelyn Byrd. Erected at McMurdo Station in 1965.

55. East Base, Antarctica, Stonington Island (68°11'S., 67°00'W.). Buildings and artefacts at East Base, Stonington Island and their immediate environs. These structures were erected and used during two U.S. wintering expeditions: the Antarctic Service Expedition (1939-1941) and the Ronne Antarctic Research Expedition (1947-1948). The size of the historic area is approximately 1,000 meters in the north-south direction (from the beach to Northeast Glacier adjacent to Back Bay) and approximately 500 meters in the east-west direction.

XV - 13

ANTARCTIC PROTECTED AREA SYSTEM: HISTORIC SITES AND MONUMENTS

(AMENDMENT TO DESCRIPTION OF HM 53)

The Representatives,

Recalling that Historic Monument No. 53 was added to the list of Historic Monuments annexed to Recommendation VII-9, and that this Historic Monument celebrates the rescue by the Chilean pilot Luis Pardo Villalon of the survivors of the British vessel "Endurance" in 1916 and consists of a monolith placed on Elephant Island with replica monoliths placed at the Chilean stations "Arturo Prat" on Greenwich Island and "Rodolpho Marsh" on King George Island;

Noting that during the XXIVth Chilean Antarctic Scientific Expedition in 1987-1988, a bronze bust of the pilot Pardo was placed on each of these monoliths;

Recommend to their Governments that:

The following clause be added at the end of the description of Historic Monument No. 53 in Recommendation XIV8:

"Bronze busts of the pilot Luis Pardo Villalon were placed on the three above-mentioned monoliths during the XXIVth Chilean Antarctic Scientific Expedition in 1987-1988."

XV - 14

PROMOTION OF INTERNATIONAL SCIENTIFIC COOPERATION: A DECLARATION

The Representatives,

Recommend to their Governments that they approve the following declaration on scientific research in Antarctica:

The Governments participating in the XVth Consultative Meeting:

Deeply aware of the role that Antarctica and the Southern Ocean play in interactive physical, chemical and biological processes that regulate the total Earth System;

Recognizing that,

(a) the Antarctic region has a high negative radiation budget and so acts as one of the Earth's "refrigerators". Any changes in the budget will have global consequences on atmospheric and oceanic circulation;

(b) conditions beneath the ice shelves and the girdle of sea ice promote the formation of cold bottom water that drains northward;

(c) polar seas play an especially important role in the exchange of CO_2 between ocean and atmosphere since they may be large sinks for CO_2. These processes are controlled by the sea-ice formation, thermohaline convection and biological productivity;

(d) Antarctica provides unique conditions for investigating the impact of man-made pollutants on atmospheric ozone;

(e) a detailed record of past global climate and atmospheric chemistry extending over hundreds of millennia is preserved within the Antarctic ice sheet, and in the sediments of the Southern Ocean and the Antarctic continent;

(f) because climate change is predicted to be largest at high latitudes, detection of such change above the background of high natural variability is best sought in the polar regions;

(g) plant communities existing under polar conditions are sensitive to changes in temperature, and may be good indicators of climate change;

(h) the Antarctic ice sheet contains enough water to raise global sea level world-wide some 60 metres. Any green-house climate warning which makes even a small change to this volume of ice will have a significant impact on sea level;

Recognizing, with appreciation, that the contribution that Antarctic science can make to these scientific questions is the subject of intensive work within the Scientific Committee on Antarctic Research (SCAR) and that they have identified the following five major, interconnected, interdisciplinary research thrusts for the purpose of defining and encompassing research priorities:

(a) Detection of Changes of Global Importance Best Observed in Antarctica;

(b) Processes Linking Antarctic Ice and Biological Systems to the Global Ocean and Atmosphere;

(c) Antarctic Sources of Palaeoenvironmental Information;

(d) Ecology in the Changing Antarctic Environment;

(e) Monitoring Changes in Antarctica;

Recognising, moreover, that other scientific programmes which are not so directly relevant to issues of global change are of no less value to science;

Conscious of the need to ensure that all Antarctic activity is based on information adequate to ensure that informed judgements can be made about their environmental consequences;

Renew their commitment to the pursuit of scientific research in the Antarctic; and

Declare their intent:

1. Vigorously to pursue scientific research programmes in Antarctica in a manner which makes the most productive use of the resources available.

2. To ensure that their scientific endeavors contribute as much as possible to programmes of global significance being undertaken or being prepared by the International Council of Scientific Unions and by other international organisations.

3. To ensure that research results and observations are, in accordance with Article III of the Antarctic Treaty, made freely available and that the results of Antarctic programmes of global significance are brought to the attention of the international scientific community as rapidly as possible.

4. To ensure that activities in the Antarctic take full account of the global importance of the Antarctic as a scientific laboratory and as a place where aspects of global changes can most readily be monitored.

5. To ensure, in conformity with the declaration in Recommendation IX-5 on the Antarctic environment, that all Antarctic activity is based on information adequate to ensure that informed judgements can be made about their environmental consequences.

XV - 15

PROMOTION OF INTERNATIONAL SCIENTIFIC COOPERATION

The Representatives,

Recalling Articles II and III of the Antarctic Treaty and Recommendations relating to the facilitation of international scientific cooperation;

Recognising the increasing importance of Antarctica for scientific research, especially for the global environment;

Noting that the number of countries actively involved in Antarctic scientific research has increased considerably in recent years;

Recognising that this development has led to a concentration of research stations and of logistical support facilities in the more easily accessible regions of Antarctica and that this can lead to redundancy in scientific programmes and to unfavorable impact on the environment;

Conscious of the need to maximise the scientific output for a minimum of environmental impact;

Conscious that the sophistication and therefore the cost of many Antarctic scientific programmes is increasing and that some Consultative Parties are more able than others to bear the cost of such sophisticated programmes;

Recognising the scientific importance of environmental monitoring programmes in the broadest sense and that without these programmes many advances in Antarctic science which are of global significance would not be possible;

Recognising the need to encourage timeliness, relevance and excellence in the pursuit of Antarctic science and the importance of inter-comparability and accuracy in integrated research programmes to the end that the contributions to knowledge of these programmes may be greater than the sum of their constituent parts;

Desiring to promote efficiency in the utilisation of scarce resources;

Noting that the promotion of international scientific cooperation in Antarctic research is the basic objective of SCAR's activities and warmly welcoming SCAR's commitment to the holding of an unprecedented Antarctic Science Conference in 1991 designed to foster interdisciplinary discussion and science planning amongst Antarctic scientists, and the integration of Antarctic research into global programmes and the strengthening of the interaction of Antarctic science, represented by SCAR, with the international science community;

Recommend to their Governments that:

1. They take such steps as may be open to them to encourage participation in the SCAR Antarctic Science Conference in 1991 on the part of their Antarctic communities and take note of its results.

2. All Contracting Parties, in planning Antarctic activities, should seek through consultation within the Antarctic science community, to take account of the scientific objectives of SCAR.

3. Through their national committees, they invite SCAR to:

(a) facilitate the participation in its activities of representatives from Antarctic scientific communities with less experience or fewer resources; and

(b) consider identifying by scientific discipline and geographical area, scientific topics, including data gathering and environmental monitoring, by which countries with less experience or fewer resources would best be able to ensure that their activity contributed to knowledge of Antarctica to the benefit of all.

4. That those with longer and wider experience of Antarctic science and logistics should, as far as practicable and feasible, favorably consider requests for advice, training and participation in their national Antarctic programmes from those with less experience and otherwise encourage cooperation with their programmes.

5. Generally, they should seek by all means open to them to promote the objectives of Article III of the Antarctic Treaty.

XV - 16

FACILITATION OF SCIENTIFIC RESEARCH: COMPARABILITY AND ACCESSIBILITY OF ANTARCTIC SCIENTIFIC DATA

The Representatives,

Recalling:

(a) Article III (1) (c) of the Antarctic Treaty calling on Parties to exchange and make freely available scientific observations and results from Antarctica;

(b) Recommendation XIII-5 inviting the Scientific Committee on Antarctic Research (SCAR) to offer scientific advice on how to improve the comparability and accessibility of Antarctic scientific data; and

(c) that the Report of the XIVth Consultative Meeting identified determination of types of useful data for management and assessment and the development of a directory as two important initial steps to improve data comparability and accessibility;

Noting that:

(a) the Report of XX SCAR responds to Recommendation XIII-5 by describing several steps needed for the establishment of an Antarctic data system and by calling for the establishment of a committee on data management to advise on the development of such a system;

(b) SCAR has established such a committee with the following terms of reference;

(i) to determine the requirements within SCAR for a coordinated approach to data;

(ii) to consider the possible compilation of a SCAR directory of available items, data bases, geographical information systems, data centers, specimen holdings, relevant archives and bibliographic collections;

(iii) to consider the formation of guidelines for common or minimum formats for data collection and archiving; and

(iv) to suggest areas for coordination with external activities or organisations;

(c) the Report of XX SCAR identifies the development of national directories of Antarctic data as the logical first step in the development of a data system;

Desiring:

(a) to improve the accessibility and comparability of Antarctic scientific data to help give effect to Article III (1) (c) of the Antarctic Treaty; and

(b) to create an Antarctic scientific data system for use in facilitating environmental assessment and monitoring and the promotion of scientific research;

Recommend to their Governments that:

1. They develop and make available to SCAR and other Antarctic Treaty Parties a directory listing where and in what format Antarctic scientific data now exist.

2. They agree, working in cooperation with the SCAR Committee to compile an Antarctic Scientific Data Directory.

3. They agree to assist the SCAR Committee to develop a programme of work describing further steps needed to create an Antarctic Scientific and Environmental Data System, including consideration of relevant technologies.

4. Upon completion of the draft programme of work developed by SCAR, in cooperation with relevant governmental experts, they convene, in accordance with Recommendation IV-24, a Meeting of Experts, with expertise in data management, to consider how to establish an Antarctic Scientific and Environmental Data system.

XV - 17

FACILITATION OF SCIENTIFIC RESEARCH: THE SITING OF STATIONS

The Representatives,

Reaffirming that freedom of scientific investigation as set out in Article II of the Antarctic Treaty is one of the fundamental principles of the Treaty;

Affirming that measures adopted in this Recommendation are not intended to interfere with the possibility of a non-Consultative Party establishing a station in Antarctica but to ensure that such Parties may maximize their contribution to knowledge and the protection of the Antarctic;

Recalling Recommendations I-I, VI-4, VII-1, VIII-11, VIII-13, IX-5, XII-3, and XIV-2;

Recalling that at the XIIIth Consultative Meeting, Recommendation XIII-6 was adopted, calling for consultations between nations with Antarctic programmes operating existing stations in the same vicinity;

Recalling that the Final Report of the XIVth Consultative Meeting notes that:

(a) new stations had a greater possibility of maximizing their scientific potential if established in the widest possible range of areas;

(b) SCAR had:

(i) recorded its concern that the continued increase in the number of stations in some parts of the Antarctic could result in unproductive duplication of scientific programmes; and

(ii) recommended that adequate prior notice be given of intent to undertake a development or scientific activity that is likely to have a major environmental impact; and

(c) a process of consultation was needed which started as early as possible in the planning stage of the new station and continued through subsequent stages, including the development and implementation of routine operations;

Recognizing that the establishment of a new station or major logistic support facility is an activity which is likely to have more than a minor or transitory effect on the environment and is therefore subject to the Comprehensive Environmental Evaluation procedure described in Recommendation XIV-2;

Bearing in mind that while the establishment in the same vicinity of scientific research stations and logistic support facilities may favour scientific co-operation and the functioning of these stations, excessive concentration of such installations may have a negative effect on scientific activities and on the environment;

Recommend to their Governments that:

1. They urge Contracting Parties, when considering the establishment of new stations or facilities, to take the following measures to avoid excessive concentration in Antarctica of such stations or facilities:

(a) as early as possible when considering the establishment of a new station or facility in the vicinity of one or more existing stations or facilities, Contracting Parties should initiate, through their national

Antarctic programme, a process of consultations, co-ordination and possible cooperation with the other national Antarctic programme or programmes concerned;

(b) they should continue this process through the subsequent stages, including the development and implementation of routine logistic operations, with a view to minimizing both interference with existing programmes and impact on the environment.

(c) before establishing a new station or facility, Contracting Parties should prepare a Comprehensive Environmental Evaluation in accordance with Recommendation XIV-2.

2. In the case of a station or facility which the national Antarctic programme of a non-Consultative Party proposes to establish, they offer assistance to the managers of that programme with respect to the choice of site and the preparation of the Comprehensive Environmental Evaluation, with a view to maximizing the scientific output of the new programme and minimizing its environmental impact.

XV - 18

COOPERATION IN METEOROLOGICAL AND SEA ICE INFORMATION SERVICES FOR MARITIME AND AIR NAVIGATION IN ANTARCTICA

The Representatives,

Recalling Article II of the Antarctic Treaty and the Recommendations relating to cooperation in Antarctic logistics (II-5, III-3, IV-25) as well as Recommendation XIV-10 on the marine meteorological and sea ice information service;

Having regard to the continuing occurrence of hazardous situations leading to loss of or damage to ships in the Treaty Area,

Noting the report of a SCAR/WMO/IOC group of experts meeting;

Taking into account the results of discussion on Recommendation XIV-9 concerning air safety in Antarctica, revealing the urgent necessity to improve meteorological information for flights in the area of the Antarctic;

Wishing to act to increase the efficiency and safety of maritime and air navigation in the Treaty area on the basis of international cooperation;

Recommend to their Governments that:

1. They continue to consider ways of developing and improving meteorological and sea ice information services for maritime and air navigation in the Antarctic Treaty area;

2. The report of the Leningrad group of experts meeting be referred to the WMO Working Group on Antarctic Meteorology for formal consideration and comment at its next meeting.

3. Upon completion of the review by the WMO Working Group on Antarctic Meteorology the matter be considered by COMNAP, in association with SCAR, for the purpose of recommending any appropriate further joint, or individual action to the next Consultative Meeting.

4. In order to assist in improving meteorological services to maritime and air navigation, they take prompt measures to participate in the IGOSS, drifting-buoy and automatic weather station programmes to provide maximum data for international exchange and operational use.

XV - 19

COOPERATION IN THE HYDROGRAPHIC CHARTING OF ANTARCTIC WATERS

The Representatives,

Recognising the importance and historical values of activities carried out by the countries who developed the present knowledge of Antarctic hydrography;

Aware that there have been significant increases in both the number and size of vessels operating in Antarctic waters in recent years;

Recognising that severe environmental conditions in the Antarctic give rise to particular risks for shipping and hydrographic activities;

Recognising that the sea ice conditions can lead to the diversion of shipping from acknowledged routes, thus requiring the extension of charting into waters contiguous to such routes;

Conscious that the safety of life at sea and the protection of the Antarctic marine environment and dependent and associated ecosystems requires that the Consultative Parties should take all possible steps open to them, by improving the charting of Antarctic waters, to ensure the safety of navigation so that maritime accidents are reduced to a minimum;

Recognising that the resources available to devote to hydrographic surveys and the accurate positioning and depiction of the Antarctic coastline are scarce;

Conscious of the benefits to be gained by making provision for international cooperation between those countries which undertake hydrographic surveys and nautical charting of Antarctic waters and of utilising to the maximum extent cooperative arrangements which already exist routinely between hydrographic offices and; therefore, of the need to avoid the establishment of a parallel system;

Aware of the role traditionally played by the International Hydrographic Organization (IHO) in contributing to cooperation between hydrographic offices, and by the Scientific Committee on Antarctic Research (SCAR) in all cartographic and other scientific activities in Antarctica;

Recommend to their Governments that:

1. They increase their mutual cooperation in the hydrographic survey and charting of Antarctic waters in order to contribute to the safety of navigation, the protection of the Antarctic environment and dependent and associated ecosystems, and for scientific purposes.

2. For the purposes of hydrographic survey and charting and associated terrestrial surveys and mapping, they coordinate their activities within the framework of IMO and SCAR, as appropriate.

XV - 20

AIR SAFETY IN ANTARCTICA

The Representatives,

Recalling Recommendations I-X and XIV-9;

Recognising the importance of ensuring safe air operations in the Antarctic, and:

(a) that there is a wide range of problems in air operations which are becoming more urgent with increasing activity;

(b) that the principal body of knowledge and experience of Antarctic air operations, and its current problems, lies with the operators of national Antarctic programmes;

Noting, with appreciation, the Report of the Meeting of Experts on Air Safety in Antarctica, held in Paris from 2 to 5 May 1989;

Recommend to their Governments that:

1. For the purpose of ensuring that measures for improved air safety apply to all flights in Antarctica, measures to improve air safety set out in paragraphs 2-10 below should be elaborated on the basis of ICAO criteria, taking due account of the specific features of Antarctica as well as of existing practices and services.

2. For the purpose of ensuring the safety of air operations in the Antarctic Treaty area, they exchange, preferably by 1 September and no later than 1 November each year, information about their planned air operations in accordance with the standardized format at Annex 1 to this Recommendation.

3. For the purpose of improving air safety in Antarctica, national Antarctic programmes operating aircraft in Antarctica and their aircrews should be provided with a continuously updated compendium ("Handbook")

describing ground facilities, aircraft and aircraft operating procedures (including helicopters) and associated communications facilities operated by each national Antarctic programme (out of the use of which questions of liability will not arise) and, therefore, they should:

(a) prepare such a Handbook as a matter of urgency;

(b) facilitate the preparation of such a Handbook by their national Antarctic programme operators by collective action through the medium of the Council of Managers of National Antarctic Programmes (COMNAP) federated to SCAR;

(c) adopt a loose-leaf format in which information provided by each national operator is kept separate (unless facilities are jointly operated) so as to facilitate updating of information;

(d) request their national Antarctic operators to provide information for the purpose of compiling the Handbook in accordance with Annex 2 to this Recommendation.

4. For the purpose of ensuring mutual awareness of current air operations and exchanging information about them, they should designate:

(a) Primary Air Information Stations (PAIS) which coordinate their own air information and information from their Secondary Air Information Stations (if any) for the purpose of notifying current air operations to other PAIS. These PAIS should have adequate communication facilities able to transmit "hard copy" information by means of an agreed HF data mode and/or INMARSAT; and

(b) Secondary Air Information Stations (SAIS) which comprise stations/bases (including field bases and ships) which provide air information to their parent coordinating PAIS.

5. For the purpose of avoiding air incidents in areas beyond the range of VHF radio coverage of primary and secondary stations, aircraft outside the areas covered by primary and secondary stations should use a specific radio frequency to apply the "TIBA" procedure laid down in Annex 11 to the Convention on International Civil Aviation.

6. So as to ensure compliance with Article VII, paragraph 5 of the Antarctic Treaty and also Recommendation X-8, Part IV, they should keep one another informed about non-governmental flights and a reminder of the above provisions should be given to all pilots filing a flight plan for flights to Antarctica.

7. So as to provide for the improved collection from, and exchange within Antarctica of meteorological data and information of significance to the safety of Antarctic air operations, they should:

(a) encourage the World Meteorological Organisation in their work towards this end; and

(b) take steps to improve meteorological services available in Antarctica, specifically to meet aviation requirements.

8. For the purpose of ensuring effective communications between Primary Air Information Stations (PAIS), they ensure that their PAIS have adequate facilities for communicating with other PAIS, and that, in this connection, they bear in mind the INMARSAT system.

9. For the purpose of locating aircraft in distress in Antarctica, and noting the possibilities offered by the COSPAS-SARSAT system for the location of Emergency-Locator-Beacons-Aircraft transmitting on 406 Mhz, they designate points of contact which are to be the addressees of emergency location messages relating to air operations in Antarctica generated by the COSPAS-SARSAT system.

10. For the purpose of enhancing the safety of operation of aircraft in the longer term, studies should be undertaken, at a suitable time, aimed at making use of a satellite communication and navigation system being developed within the framework of ICAO.

ANNEX TO RECOMMENDATION XV-20

ADVANCE NOTICE

INFORMATION ON PLANNED AIR OPERATIONS IN ANTARCTICA FOR PERIOD COMMENCING 1 OCTOBER 19 TO 30 SEPTEMBER 19

Part A

Country:	Operations/Logistics Contact Officers	Position	Office Telephone No
Address for Correspondence: Facsimile:			

Part B

• Please tick (✔) appropriate box

• ☐ No. it is not intended to conduct air operations in Antarctica during the forthcoming summer season

• ☐ Yes. it is intended to conduct air operations in Antarctica during the forthcoming summer season for which the following information sheets are attached:

(• Debate as appropriate)

Sheet 1	Intercontinental Operations	Yes/No•
Sheet 2	Continental Operations	Yes/No•
Sheet 3	Ship Based Operations	Yes/No•
Sheet 4	Other Air borne Operations (e.g. Balloons or Rockets)	Yes/No•
Sheet 5	Aircraft Description	Yes/No•

Signed ..... Date .....

Part C	Station	Lat. Long	INMARBAT Nce.
Primary Air Information Stations			
Secondary Air Information Stations			

INFORMATION ON PLANNED AIR OPERATIONS IN ANTARCTICA: Intercontinental Flights Sheet 1

Route	No. of Flights	• Flight Level or Altitude (ft/m)	Appropriate Dates or Period	Number and Type of Aircraft per flight

• Refer to Explanatory Notes, Item (3)

INFORMATION ON PLANNED AIR OPERATIONS IN ANTARCTICA: Continental Operations Sheet 2

Route/Location	No. of Flights	• Flight Level or Altitude (ft/m)	Appropriate Dates or Period	Number and Type of Aircraft per flight

• Refer to explanatory Notes, Item (3)

INFORMATION ON PLANNED AIR OPERATIONS IN ANTARCTICA: Ship Based Operations Sheet 3

Vessel/Route/Location	Planned Schedule		Number and Type Of Aircraft
	Arrive	Depart	

INFORMATION ON PLANNED AIR OPERATIONS IN ANTARCTICA: Other Airborne Operations (e.g. Balloons or Rockets) Sheet 4

Location	Latitude	Longitude	Type of Device	Maximum Altitude (ft/m)	Appropriate Times/Dates/Period	Other Information

INFORMATION ON PLANNED AIR OPERATIONS IN ANTARCTICA: Aircraft Description Sheet 5

Short Name	Full Name	(a) F/R	(b) W/S	No of Aircraft	(c) Flight Level or Altitude (ft/m)	Pax Capacity	Radio Equipment	Navigation Equipment	(d) Max Range (nim)	Type of Fuel Used	(e) SAR Equip-ment
Postenotes:											

(a) fined (F) or Rotary (R) Wing
(b) Wheeled (W) or Ski (S) Equipped
(c) Refer to Explanatory Notes, Item (3)
(d) For helicopters, also indicate maximum range over water, in brackets ( )
(e) Refer to Footnotes

EXPLANATORY NOTES on the Procedure for the Exchange of Information on Planned Air Operations in Antarctica

In accordance with discussions at the 1988 Hobart Meeting of MNAP's and SCAR Working Group on Logistics, and Proposal 2 of the 1989 Paris Meeting of Experts on Air Safety, it was agreed that Antarctic Operators would exchange information on their planned air operations in a standardised format by 1 September each year.

The format for presenting the information is given in the attachments to this document.

Please note:

1. All Operators are to complete the "Advance Notice" cover sheet whether or not they plan to undertake air operations in the forthcoming summer season.

2. Operators who do plan to conduct air operations during the forthcoming summer season are to complete the "Advance Notice" cover sheet and the applicable information sheets as follows:

- Intercontinental Operations (Sheet 1);
- Continental Operations (Sheet 2);
- Ship Based Operations (Sheet 3);
- Other Airborne Operations (Sheet 4); and
- Aircraft Description (Sheet 5).

3. Flight Level or Altitude information is to be provided as follows:

- For inter or intra continental flights, and flights remote from stations, specify the normal operating Flight Level for the aircraft (which would be based on the Standard Pressure altimeter setting of 1013.2 hPa).

- For flights operating within the vicinity of stations (up to 50 nm radius), specify normal operating Altitude or altitude range for the aircraft (which would be based on the local QNH altimeter setting).

Notes:

(a) A transition altitude and level for Antarctic flights has not yet been agreed.

(b) A table of standard en route cruising levels for vertical separation based on direction of track (true or grid) has not yet been agreed.

(c) The ICAO standard altitude in both metres and feet for each flight level will apply.

4. All flight times (for example, for balloon launches) are to be given in Coordinated Universal Time (UTC).

5. The "Exchange of Information Sheets" should preferably be completed in the English language.

ANTARCTIC AERONAUTICAL INFORMATION HANDBOOK

CONTENTS

1. GENERAL (arranged by the name of countries in their internationally accepted order in the language of the document).

1.1 The postal address of the National Antarctic Operator including telephone, telex and telefax numbers;

1.2 An indicative description of the parts of the Antarctic Treaty Area in which the operators' aircraft operates;

1.2.1 frequently

1.2.2 infrequently
(Maps may be used where this would facilitate understanding of the description).

1.3 The primary station (PAIS) or stations from which the national operator co-ordinates his aircraft operations;

1.3.1 the role played by the operators' secondary stations (PAIS).

1.4 Ships carrying helicopters or which have designated on board facilities for operating helicopters.

2. GROUND FACILITIES (arranged by the alphabetical order of the name of each station. All stations and field camps are to be included which operate for more than one Antarctic summer season).

2.1 Runways, skiways and helipads (Information to be provided using paragraphs 2-43 of section 2.2. of Appendix I to Annex 15 to the Convention on International Civil Aviation as a guideline).

2.2 Communications
(Information to be provided using paragraphs 2-14 of section 3.2 and paragraphs 2-10 of section 3.3 of Appendix I to Annex 15 as a guideline).

2.3 Meteorology
(Information to be provided using paragraphs 2-11 of section 4.2. of the Appendix I to Annex 15 as a guideline).

2.4 Aircraft operating procedures.

2.5 Alerting and search and rescue procedures.

XV - 21

USE OF ANTARCTIC ICE

The Representatives,

Considering that the ice existing in Antarctica represents the world's largest freshwater reserve;

Noting that, technological developments might one day make it possible to utilize icebergs detached from the continent for freshwater requirements, especially in coastal areas;

Recalling the principles enshrined in the Antarctic Treaty, which lay down a regime for international co-operation guaranteeing that Antarctica shall continue for ever to be used exclusively for peaceful purposes and shall not become the scene or object of international discord;

Convinced that the structure established under the Antarctic Treaty has proved effective in promoting international peace, in keeping with the purposes and principles of the United Nations Charter;

Concerned that uncontrolled activities relating to the exploitation of Antarctic icebergs could also have an adverse effect on the unique Antarctic environment and its dependent and associated ecosystems;

Noting that sufficient scientific information is not yet available on the environment impacts, including global climate and weather, which might occur in the event of floating icebergs being used for that purpose;

Noting that the harvesting of ice in the coastal regions of Antarctica, especially if this were to require land-based installations, could give rise to a number of additional environmental or other issues;

Acknowledging that the Antarctic Treaty is the most appropriate framework for fostering international efforts to guarantee the protection of the environment and give impetus to the freedom of scientific research and co-operation in Antarctica;

Recognizing the desirability that commercial exploitation of Antarctic ice not occur, in any case, prior to examination by the Contracting Parties to the Antarctic Treaty of the issues posed by such activity;

Recommend to their Governments that:

1. They exchange information on the feasibility of commercial exploitation of icebergs, relevant technologies and possible environmental impacts.

2. Through their national committees, they invite SCAR to provide advice, as appropriate, on the above-mentioned matters, and continue to co-ordinate research programmes in polar glaciology, biology, oceanography, and meteorology in relation to Antarctic ice.

3. They include an item on "Use of Antarctic Ice" on the agenda of the XVIth Consultative Meeting.

XV - 22

ANTARCTIC TREATY THIRTIETH ANNIVERSARY COMMEMORATIVE STAMP ISSUE

The Representatives,

Recommend to their Governments that;

1. On the occasion of the Thirtieth Anniversary of the entry into force of the Antarctic Treaty, each Consultative Party should issue a commemorative stamp (or stamps) on a common date in 1991 (Eg. 23 June 1991).

2. The stamp (or stamps) should bear, in the language or languages of each issuing country, the following words:

"Antarctic Treaty 1961-1991".

3. Consideration be given to the themes of protecting the Antarctic environment and international cooperation in Antarctic scientific research for the most prominent features of the design.

4. There should be incorporated into the design of the stamp (or stamps), the Antarctic Treaty emblem representing a map of Antarctica which appears on the official documents of Consultative Meetings.

5. Any additional matter should be consonant with the provisions and the spirit of the Antarctic Treaty.

6. The number of stamps to be issued and the denominations of the stamp or stamps should remain at the discretion of the issuing country.

Measures Approved or Recommended Under Article IX in Furtherance of Principles and Objectives of the Antarctic Treaty, Bonn, 1991

Adopted at Bonn 18 October 1991

Not in effect

Primary source citation: Antarctic Treaty: Report of the Sixteenth Consultative Meeting, printed by The Happy Printer, Bonn, for the Federal Republic of Germany, 1992

RECOMMENDATIONS ADOPTED AT THE XVIth ANTARCTIC TREATY CONSULTATIVE MEETING

XVI - 1

EXCHANGE OF INFORMATION

The Representatives,

Recalling the provisions of Articles III and VII of the Antarctic Treaty;

Noting that their Governments give effect in their domestic legislation to obligations arising from agreements reached at Antarctic Treaty Consultative Meetings;

Noting that the Convention for the Conservation of Antarctic Seals, the Convention on the Conservation of Antarctic Marine Living Resources and the Protocol on Environmental Protection to the Antarctic Treaty contain provisions whereby information about such domestic legislation is, or is to be, exchanged between Parties;

Noting, however, that such provision has not been made in relation to obligations arising from Recommendations adopted at Consultative Meetings;

Aware that knowledge of this domestic legislation can be of interest to the other Consultative Parties;

Recommend to their Governments that they include in their exchange of information under Article VII (5) of the Antarctic Treaty, information on any domestic legislation enacted to give effect to the Antarctic Treaty and to obligations arising from Recommendations adopted at Antarctic Treaty Consultative Meetings.

XVI - 2

ANTARCTIC PROTECTED AREA SYSTEM

New Sites of Special Scientific Interest

The Representatives,

Recalling Recommendations VIII-3 and VIII-4;

Noting that Management Plans have been prepared and approved by the Scientific Committee on Antarctic Research (SCAR) for certain Sites of Special Scientific Interest additional to those already designated;

Considering that it would be advantageous to gather experience of the practical effect of the Management Plans prepared for these sites;

Recommend to their Governments that they voluntarily take account of the Management Plans, annexed to this Recommendation, for the following sites:

Site No. 33: Ardley Island, Maxwell Bay, King George Island, South Shetland Islands.
(Location: 62°13′S, 58°54′W).

Site No. 34: Lions Rump, King George Island, South Shetland Islands.
(Location: 62°08′S, 58°08′W).

ANNEX 1 TO RECOMMENDATION XVI - 2

Site of Special Scientific Interest No. 33
Ardley Island, Maxwell Bay, King George Island

1. **Geographical location**

Ardley Island (62°13′S, 58°54′W) is situated about 500 m east of the coast of Fildes Peninsula, Maxwell Bay, King George Island. It is about 1 km south-east of the Soviet station Bellingshausen and the Chilean station Teniente Marsh, and about 0.5 km east of the Chinese station Great Wall.

2. **Management Plan**

(i) Description of Site

The Site comprises the entire island and its associated littoral zone, including the isthmus between the island and Fildes Peninsula to the west. The island is about 2.0 km long and 1.5 km at its widest, and rises to about 50 m altitude. It comprises mainly Tertiary andesitic-basaltic lavas and tuffs, and there are some raised beach terraces. It is snow- and ice-free in summer. There is a small (about 100 m long) freshwater pond on the south-west of the island. There is a refuge hut (FRG) near Braillard Point, and two more refuge huts (Argentina, Chile) are situated near the middle of the northern coast of the island, the latter comprising several huts.

(ii) Reason for Designation

The Site is of exceptional biological interest. It has a diverse avifauna with 12 breeding species, and is of particular importance for its breeding colonies of gentoo penguins (*Pygoscelis papua*); the average number of breeding pairs is about 4,000, which is the largest concentration of gentoos within the South Shetland Islands and probably in the Antarctic. There are also about 1,200 pairs of breeding Adélie penguins (*Pygoscelis adeliae*) and a small number of chinstrap penguins (*P. antarctica*). Other breeding species of particular importance are southern giant petrels (*Macronectes giganteus*), Wilson's storm petrels (*Oceanites oceanicus*) and Black-bellied storm petrels (*Fregatta tropica*).

The island possesses some of the best-developed and most extensive plant communities in the South Shetland Islands, notably the climax fellfield ecosystem dominated by macro lichens (*Himantormia lugubris, Usnea* spp.). Such vegetation is extremely sensitive to human intervention and is very easily damaged.

(iii) *Outline of Research*

Detailed ornithological and botanical research has been undertaken on Ardley Island for many years by Chilean, FRG and GDR scientists, with brief studies made also by scientists from other national stations in the area.

Results of a 10-year census and breeding study, commencing in 1979, of pygoscelid penguins have revealed large between-season fluctuations in numbers and the breeding success of each species. Also, the giant petrel breeding population has declined by about 80% in recent years. There is strong evidence that these population fluctuations are a direct response to disturbance by large numbers of visitors and to vehicles and low-flying aircraft. The effects of these impacts will continue to be monitored as an integral part of the long-term ornithological research being undertaken at this site.

Detailed investigations of the phytosociology of the island's vegetation and of the physiology of selected lichen species have been undertaken. Further terrestrial botanical, zoological and littoral research is planned. Because of the extreme importance of this area to biological research it is imperative that it is protected from the severe threat of human intervention so as to minimise its impact on this exceptional ecosystem.

(iv) *Date of expiry of designation*

31 December 2001.

(v) *Access points*

None specified, although not more than five persons should enter the site from the sea anywhere east of a north-south line running through the beacon on the mid-north coast of the island.

(vi) *Pedestrian and vehicular routes*

Pedestrian activity should be restricted whenever possible to areas with minimal vegetation, and should avoid any bird breeding sites, except as required for approved research studies. Tourists and non-scientific station and ship personnel should visit only the area designated for this purpose (see (ix)) in order to minimise disturbance of biota. The use of any type of vehicle, including amphibious craft on land, is not permitted. Helicopters should not land on or overfly the island below 300 m altitude. Aircraft landing at and taking off from Teniente Marsh airfield should avoid overflying the island.

(vii) *Other kinds of scientific investigations which would not cause harmful interference*

Other scientific investigations may be permitted as long as they cause minimum impact on the biota and ecosystems. All markers and structures associated with field experiments must be removed as soon as the research is completed.

(viii) *Scientific sampling*

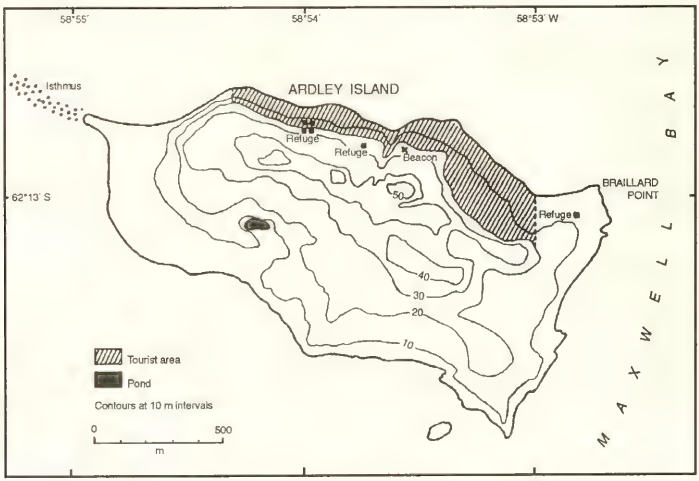
All activities involving banding, capture, killing, etc of any bird must conform with the Agreed Measures for the Conservation of Antarctic Fauna and Flora.

Any other sampling should be restricted to the minimum required for the purpose of the respective studies.

(ix) *Other restraints*

Large groups of visitors to the Site should be limited to a maximum of 20 persons at any time. Such groups of persons should have access only to the "tourist area" marked on the map, i.e. the north coast of the island as far as 300 m west of Braillard Point and 300 m west of the Chilean refuge, up to an altitude of 20 m above sea level. Groups should be accompanied by a guide, provided from the national station approving the visit, who will be responsible for their conduct and who is fully conversant with the Site Management Plan, the Agreed Measures for the Conservation of Antarctic Fauna and Flora, and the current research programmes. There should be no access for dogs whether or not they are required for sledging purposes. All human waste materials should be removed from the Site and returned to the Station of origin; no combustible materials should be incinerated within the Site.

Site of Special Scientific Interest No. 33



ANNEX 2 TO RECOMMENDATION XVI - 2

Site of Special Scientific Interest No. 34
Lions Rump, King George Island, South Shetland Islands

1. **Geographical location**

The Site is situated on the south coast of King George Bay, King George Island, South Shetland Islands, and is bounded by the following co-ordinates:

62°07′48″S, 58°09′17″W
62°07′49″S, 55°07′14″W
62°08′19″S, 55°07′19″W
62°08′16″S, 58°09′15″W

2. **Management Plan**

(i) *Description of Site*

The Site is named after Lions Rump, a prominent rocky hill between the southern extremity of King George Bay and Lion Cove. It includes the littoral and sublittoral extending from the eastern end of "Lajkonik Rock" to the northernmost end of Twin Pinnacles Island, and from that point to the easternmost end of the columnar plug "Lions Head" to the east of White Eagle Glacier. On land the Site includes the coastline of raised beaches, freshwater pools and the streams on the south side of King George Bay and, around Lion Cove, moraines and slopes leading up to the lower ice tongue of White Eagle Glacier and westward to a small moraine protruding through the ice cap south-east of Sukiennice Hills. Lions Rump comprises Tertiary lavas and tuffs with thin brown coal intercalations and silicified wood fragments. The moraine west of Lion Cove consists of several Holocene stages of glacier advance and retreat. A small refuge is situated near the shore close to the main stream within the Site, about 300 m west of Lions Rump.

(ii) *Reason for Designation*

The Site is representative of the terrestrial, limnological and littoral ecosystems of King George Island, possessing diverse biota and rock formations.

There is a rich flora, especially of lichens, and the two native vascular plants, *Colobanthus quitensis* and *Deschampsia antarctica*, are frequent. Twelve species of birds breed within the Site, including many colonies of three species of pygoscelid penguins, Adélie, chinstrap and gentoo. There are large numbers of elephant seals and fur seals on the beaches. It is a rich part of the coastal ecosystem which has not been disturbed by human activity, other than various biological, geological and geomorphological studies which have been undertaken within the Site.

(iii) *Date of designation and originator*

July 1990: Poland

(iv) *Date of expiry of designation*

31 December 2001.

(v) *Access Points*

Access from the sea should be close to the outflow of the main stream within the Site about 300 m west of Lions Rump. Helicopter landings should be restricted to the area south of the southern boundary of the Site, so as not to disturb the fauna.

(vi) *Entry permit requirement*

Entry into the Site should be in strict accordance with a current permit, issued by a Participating Government or its authorised representative, specifically for a compelling scientific purpose which cannot be served elsewhere or for site inspection, and which will not jeopardise any aspect of the natural ecosystem or its biota within the Site (see Antarctic Treaty Agreed Measures for the Conservation of Antarctic Fauna and Flora, Article VIII).

However, access to the Site shall be unlimited to parties wishing only to traverse or pass through the site to carry out bona fide scientific research inland of the Site. Such parties shall pass through the site as speedily as is reasonable and shall not disturb any part of the site. Details of the visit should be included in the national annual report of Exchange of Information for the same Antarctic season in which the activities were carried out. Research parties passing through the site as permitted above should also report their visits in the same way.

(vii) *Prohibitions*

To avoid or minimise human impact it is prohibited to:

(a) drive any vehicle within the Site;
(b) land a helicopter within the Site;
(c) overfly the Site by any aircraft below 250 m above the highest point;
(d) anchor or moor any seacraft within the Site, except in accordance with the permit;
(e) incinerate, bury or otherwise dispose of any human waste within the Site; all such waste must be removed from the Site;
(f) leave depots of fuel, food or any other supplies within the Site, unless they are further required within the same season, at the end of which they must be removed;
(g) erect any form of building additional to the existing refuge within the Site.

(viii) *Pedestrian routes*

None specified, but precautions must be taken to avoid disturbance to any breeding bird or seal or stand of vegetation, unless required as specified in the permit.

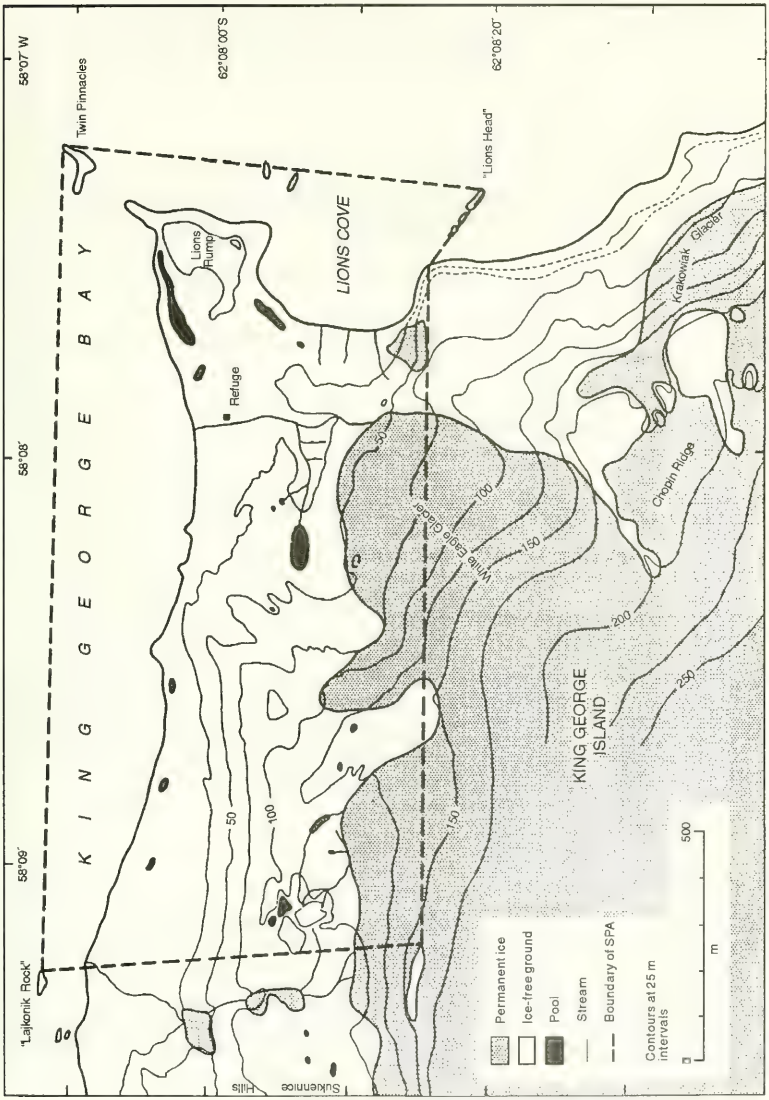
(ix) *Scientific research and sampling*

All activities must conform strictly with those specified in the permit to enter the Site.

(x) *Inspection and maintenance*

Inspection visits to the Site should be made at least once every five years to assess its state and to monitor significant biological or environmental changes. Other visits should be made as necessary to maintain boundary markers, notices, etc.

Site of Special Scientific Interest No. 34



XVI - 3

ANTARCTIC PROTECTED AREA SYSTEM

New Marine Sites of Special Scientific Interest

The Representatives,

Recalling Article II of the Antarctic Treaty, Recommendations VII-3, VIII-3 and XIV-6;

Noting that Management Plans have been prepared and approved by the Scientific Committee on Antarctic Research (SCAR) for two Marine Sites of Special Scientific Interest;

Considering that it would be advantageous to gather experience of the practical effect of the Management Plans prepared for these Sites;

Recommend to their Governments that they voluntarily take account of the Management Plans, annexed to this Recommendation, for the following Sites:

No. 35 Western Bransfield Strait, off Low Island, South Shetland Islands;
No. 36 East Dallmann Bay, off Brabant Island.

ANNEX 1 TO RECOMMENDATION XVI - 3

Marine Site of Special Scientific Interest No. 35
Western Bransfield Strait

1. **Geographical Location**

The Site is located off the southern shore of Low Island, western South Shetland Islands, between latitudes 63°20′S and 63°35′S and between longitudes 61°45′W and 62°30′W (with reference to U.S. Defense Mapping Agency Hydrographic/Topographic Center Chart No. 29121). A small portion of the Low Island landmass/snowmass projects into the northern boundary of this domain; here the northern limit of the Site will be the associated intertidal zone. East, west, and south of the island the bottom slopes gently from the intertidal zone to depths of approximately 200 metres and then drops off rapidly near the boundary limits of the Site.

2. **Management Plan**

(i) *Description of Site*

The bottom consists of a sand/mud/cobbled-rock matrix and supports a rich benthos, e.g., numerous fish species, invertebrates (sponges, anemones, annelids, molluscs, crustaceans, asteroids, ophiuroids, echinoids, holothurioids, brachiopods, tunicates), and marine plants, in several distinct communities. Fish species commonly collected near Low Island include *Notothenia gibberifrons, Chaenocephalus aceratus, Harpagifer bispinis, Parachaenichthys charcoti, Trematomus newnesi*, and *N. coriiceps neglecta*. Species rarely found at Low Island include *Pseudochaenichthys georgianus, Champsocephalus gunnari,* and *Chionodraco rastrospinosus*. In addition, the Low Island shelf appears to be a major spawning ground for several fish species (e.g., *N. coriiceps neglecta* and the ice fish *C. aceratus*).

(ii) *Reason for designation*

The shallow shelf south of Low Island is one of only two known sites in the vicinity of Palmer Station that are suitable for bottom trawling for fish and other benthic organisms. From an ecological standpoint, the Low Island site offers unique opportunities to study the composition, structure, and dynamics of several accessible marine communities. The Site, and in particular, its benthic fauna, is of exceptional scientific interest and requires long-term protection from potential harmful interference.

(iii) *Outline of research*

Studies of this area by scientists from Palmer Station began in the early 1970s. The current research programme uses fish from Low Island to study the biochemical adaptations that enable proteins to function at low temperatures and physiological adaptation of muscle and energy metabolism to low temperatures. These studies are conducted each year during the austral summer.

(iv) *Date of expiry of designation*

31 December 2001.

(v) *Access points*

Any boundary point may be used for entry. Free passage of ships through this Site is permitted.

(vi) *Pedestrian and vehicular routes*

Not applicable.

(vii) *Other kinds of scientific investigations that would not cause harmful interference*

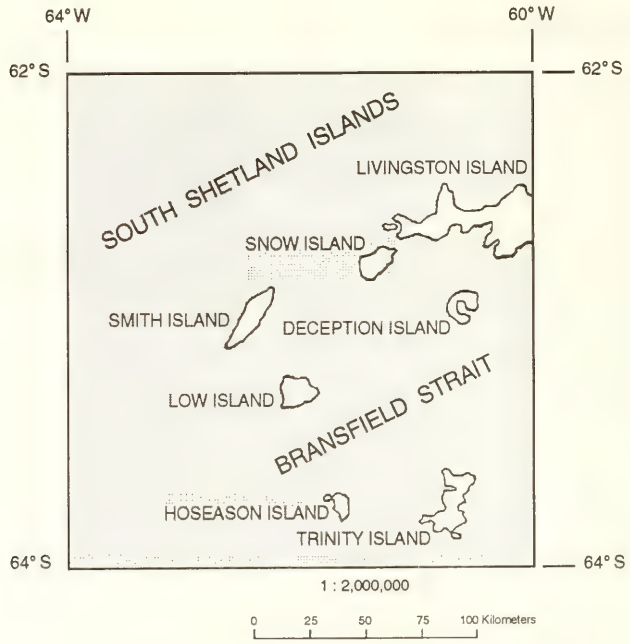
Ecological studies of the sea floor and its benthos by any method should be restricted to the minimum necessary for research activities and should be carried out with minimal disturbance of the Site.

(viii) *Scientific sampling*

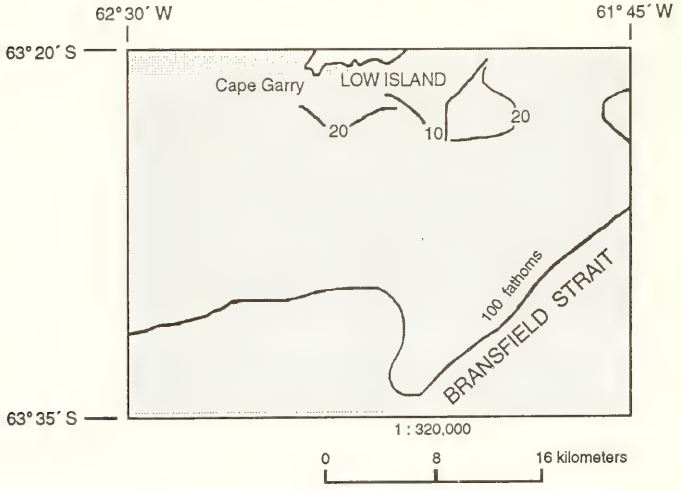
Sampling of the sea floor and its benthos by any method should be restricted to the minimum necessary for research activities and should be carried out with minimal disturbance of the Site.

(ix) *Other restraints*

Ships should, where possible, avoid anchoring within the boundaries of the Site.



Marine Site of Special Scientific Interest No. 35



ANNEX 2 TO RECOMMENDATION XVI - 3

Marine Site of Special Scientific Interest No. 36
East Dallmann Bay

1. **Geographical location**

The Site is located in East Dallmann Bay off the western shore of Brabant Island, Palmer Archipelago, between latitudes 64°00′S and 64°20′S and from longitude 62°50′W east to the intertidal zone of the island's western shore (with reference to U.S. Defense Mapping Agency Hydrographic/Topographic Center, Chart No. 29121). West of Brabant Island the bottom forms a gently sloping shelf from the intertidal zone to depths of approximately 200 m and then drops off rapidly near the western boundary of the Site.

2. **Management Plan**

(i) *Description of Site*

The bottom consists of a sand/mud/cobbled-rock matrix. The benthic community includes numerous fish species, invertebrates (sponges, anemones, annelids, molluscs, crustaceans, asteroids, ophiuroids, echinoids, holothurioids, tunicates), and marine plants. Fish species commonly collected at East Dallmann Bay include *Notothenia gibberifrons, Chaenocephalus aceratus, Champsocephalus gunnari, Pseudochaenichthys georgianus*, and *Chionodraco rastrospinosus*. Specimens of *Trematomus newnesi* and *Notothenia coriiceps neglecta* are rare in this area.

(ii) *Reason for designation*

The shallow shelf west of East Dallmann Bay is one of only two known sites near Palmer Station that are suitable for bottom trawling for fish and other benthic organisms. The Site and, in particular, its benthic fauna are of exceptional scientific interest and require long-term protection from harmful interference.

(iii) *Outline of research*

Studies of this area by scientists from Palmer Station began in the early 1970s. The current research programme uses fish from East Dallmann Bay to study the biochemical adaptations that enable proteins to function at low temperatures and the physiological adaptation of muscle and energy metabolism to low temperatures.

(iv) *Date of expiry of designation*

31 December 2001.

(v) *Access points*

Any boundary point may be used for entry. Free passage of ships through this Site is permitted.

(vi) *Pedestrian and vehicular routes*

Not applicable.

(vii) *Other kinds of scientific investigations that would not cause harmful interference*

Ecological studies of the composition, structure, and dynamics of the marine communities would not be harmful.

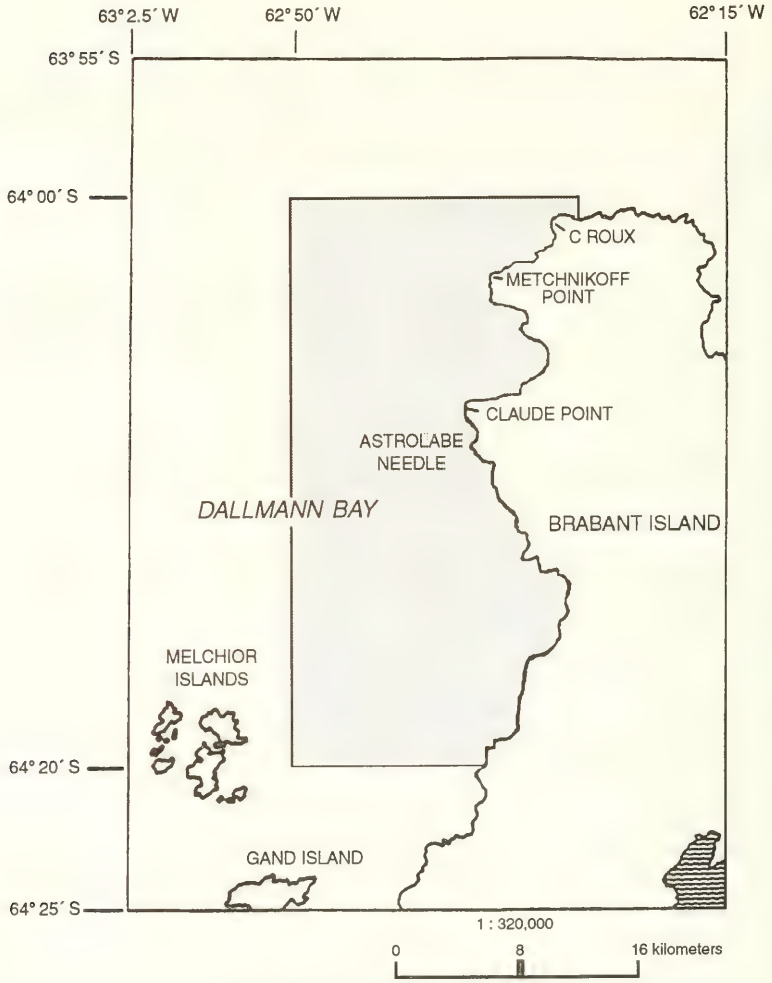
(viii) *Scientific sampling*

Sampling of the sea floor and its benthos by any method should be restricted to the minimum necessary for research activities and should be carried out with minimal disturbance of the Site.

(ix) *Other restraints*

Ships should, where possible, avoid anchoring within the boundaries of the Site.

Marine Site of Special Scientific Interest No. 36



XVI - 4

ANTARCTIC PROTECTED AREA SYSTEM

Specially Protected Areas
Re-Designation of Site of Special Scientific Interest No. 30, Avian Island, Marguerite Bay, Antarctic Peninsula as Specially Protected Area No. 21

The Representatives,

Recalling Recommendation XV-8 and XV-9;

Noting that a Management Plan has been approved by the Scientific Committee on Antarctic Research (SCAR);

Considering that Avian Island, together with its littoral zone is unique in the Antarctic Peninsula region for its abundance and diversity of breeding seabirds, including Adélie Penguins, Blue-eyed Shags, Giant Petrels, Dominican Gulls, South Polar Skuas and Wilson's Petrels, and that the colony of Adélie Penguins is the largest on the Antarctic Peninsula, and that other species are at or near the southern limits of their breeding range, and that the island is vulnerable to visits by tourists, and uncontrolled personnel;

Recommend to their Governments that:

(i) the designation of Avian Island as Site of Special Scientific Interest No. 30 under Recommendations VIII-3 and VIII-4 be terminated;

(ii) the number 30 should not be used for another Site of Special Scientific Interest;

(iii) the following area of outstanding ornithological interest be inserted in Annex B, Specially Protected Areas, of the Agreed Measures for the Conservation of Antarctic Fauna and Flora (1964), along with the Management Plan accompanying the description of the said Specially Protected Area:

Specially Protected Area No. 21
Avian Island, Marguerite Bay, Antarctic Peninsula (67°46′S, 68°54′W).

ANNEX TO RECOMMENDATION XVI - 4

Specially Protected Area No. 21
Avian Island, North West Marguerite Bay, Antarctic Peninsula

1. **Geographical location**

Avian Island (67°46′S, 68°54′W) lies 0.25 km south of the south-west tip of Adelaide Island in north-west Marguerite Bay, south-west Antarctic Peninsula.

2. **Management Plan**

(i) *Description of Area*

The Area consists of Avian Island together with its littoral zone. It is 1.45 km long by 0.8 km at its widest (total area about 49 ha), and rises to just over 40 m altitude in the south. It is almost entirely ice-free in summer. There are several shallow melt pools, the largest being on the eastern raised beach terrace. There are two small dilapidated refuge huts, one near the north-west and the other near the mid-east shores of the island.

(ii) *Reason for designation*

The Area is unique in the Antarctic Peninsula region for its abundance and diversity of breeding seabirds, the most important of which are: Adélie penguins (*Pygoscelis adeliae*) about 36,000 pairs; blue-eyed shags (*Phalacrocorax atriceps*) about 670 pairs; southern giant petrels (*Macronectes giganteus*) about 250 pairs; Dominican gulls (*Larus dominicanus*) about 60 pairs (total adult birds about 200); skuas (*Catharacta maccormicki*) 30 pairs (total adult birds about 200); Wilson's storm petrels (*Oceanites oceanicus*) several hundred pairs. Several other birds are frequent visitors, breeding elsewhere in Marguerite Bay. Weddell seals (*Leptonychotes weddellii*) breed in small numbers around the shores of the island, and other species of seals occasionally come ashore, particularly fur seals (*Arctocephalus gazella*) in increasing numbers during summer. Bryophyte vegetation is sparse but nitrophilous lichen communities are well-developed; vascular plants are absent. The giant petrel colony is the farthest south known breeding location and represents about a quarter of the population breeding on the entire Antarctic Peninsula. The blue-eyed shag colony is one of the largest known in the Antarctic and is very close to the southern limit of the species' breeding range; it represents about 85% of the total population breeding south of the Antarctic Circle. The Adélie penguin colony is the largest on the Antarctic Peninsula and contains a third of the total population breeding in the region.

(iii) *Date of designation and originator*

Originally designated as SSSI No. 30, November 1989, Recommendation XV-6, by UK; Proposed designation as SPA, July 1990, UK.

(iv) *Access points*

Access should be from the sea as close as possible to either of the refuge huts.

(v) *Entry permit requirement*

Entry into the Area is only in strict accordance with a current permit issued by a Participating Government or its authorised representative, specifically for a compelling scientific purpose which cannot be served elsewhere, or for site inspection, and which will not jeopardise any aspect of the natural ecosystem or its biota within the Area (see Antarctic Treaty Agreed Measures for the Conservation of Antarctic Fauna and Flora, Article VIII). Details of the visit should be included in the national annual report of Exchange of Information for the same Antarctic season in which the activities were carried out.

(vi) *Prohibitions*

To avoid or minimise human impact it is prohibited to:

(a) drive any vehicle within the Area (over-snow vehicles used to visit the island must be left at the shoreline);
(b) bring any dog into the Area;
(c) land a helicopter within the Area;
(d) overfly the Area by any aircraft below 250 m above the highest point;
(e) use any of the Area's coves or bays for anchoring or mooring seacraft except in accordance with the permit;
(f) incinerate, bury or otherwise dispose of any non-human waste within the Area; all such waste must be removed from the Area;
(g) leave depots of fuel, food, or any other supplies within the Area, except at the refuges, unless they are further required within the same season, at the end of which they must be removed.
(h) erect any form of building within the Area, besides the restoration and maintenance of the two existing refuges.

(vii) *Pedestrian routes*

None specified, but every precaution must be taken to avoid disturbance of any breeding bird (especially giant petrels, which pedestrians should not approach closer than 100 m) or seal, unless required as specified in the permit.

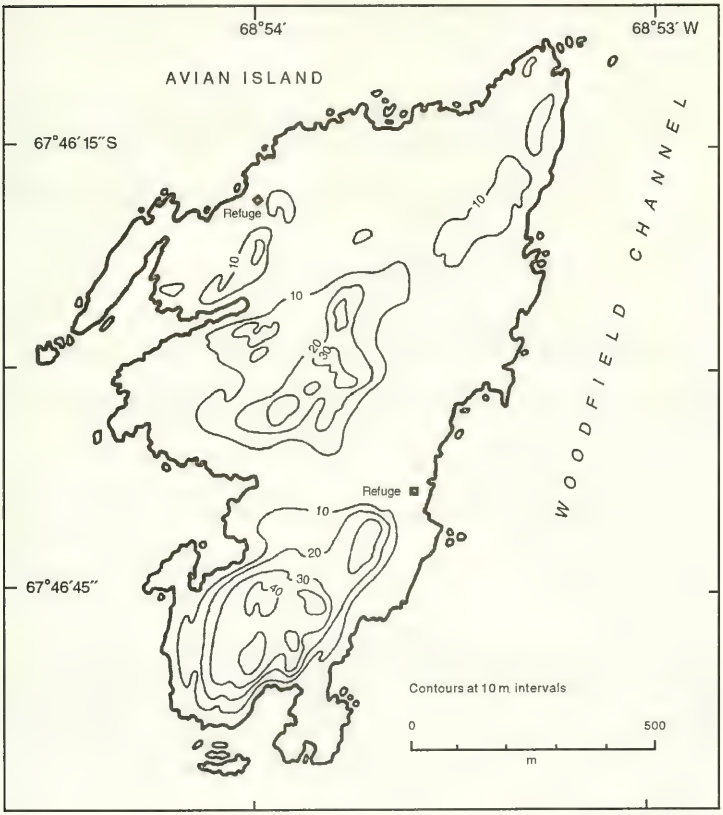
(viii) *Scientific research and sampling*

All activities must conform strictly with those specified in the permit to enter the Area.

(ix) *Inspection and maintenance*

Inspection visits should be made to the Area at least once every five years to assess the state of the site and to monitor any significant biological or environmental changes. Other visits should be made as necessary to maintain boundary markers, notices, etc.

Specially Protected Area No. 24



XVI-5

ANTARCTIC PROTECTED AREA SYSTEM

Sites of Special Scientific Interest: Interim Guidelines Site of Special Scientific Interest No. 6, Byers Peninsula, Livingston Island, South Shetland Islands

The Representatives,

Recalling Recommendation VIII-4 and the Management Plan for Site of Special Scientific Interest No. 6: Byers Peninsula, Livingston Island, South Shetland Islands, annexed thereto;

Noting that at its Twenty-First Meeting the Scientific Committee on Antarctic Research (SCAR), held at Sao Paulo, Brazil (24-27 July 1990), reviewed the Management Plan and scientific interest of SSSI No. 6: Byers Peninsula Livingston Island, South Shetland Islands;

Recommend to their Governments that:

(i) the Management Plan for Site of Special Scientific Interest No. 6: Byers Peninsula, Livingston Island, South Shetland Islands, annexed to Recommendation VIII-4 be terminated;

(ii) they voluntarily take account of the Management Plan, annexed to this Recommendation, for Site No. 6: Byers Peninsula, Livingston Island, South Shetland Islands.

ANNEX TO RECOMMENDATION XVI - 5

Amendment to Site of Special Scientific Interest No. 6 Byers Peninsula, Livingston Island, South Shetland Islands

This Site currently comprises three areas of varying shape and size on Byers Peninsula designated solely for their sedimentary and palaeontological interest. However, the peninsula is also of considerable biological and archaeological importance.

1. **Geographical location**

Byers Peninsula is an extensive, largely ice-free area at the western end of Livingston Island, South Shetland Islands, centred on lat. 62°38′S, long. 61°05′W.

2. **Management Plan**

(i) *Description of Site*

The Site comprises the entire area of Byers Peninsula extending from the ice margin on the west side of Rotch Dome (to a point directly north of Stackpole Rocks) westwards to the west end of Ray Promontory. The littoral zone of the Peninsula is included within the Site. The nearby offshore islets and islands are not included in the Site. Most of the Site is low and undulating, below 100 m altitude, except for Ray Promontory which has a more rugged topography, rising to over 200 m at Penca Hill and Start Hill. Numerous volcanic plugs, lakes, pools and streams occur between Ray Promontory and the Rotch Dome ice field. Coastal areas often have broad beaches several hundred metres wide, with raised beaches behind.

(ii) *Reason for designation*

The fossils found in this area provide evidence of the former link between Antarctica and the other southern continents. A long-term palaeontological research programme has been in progress since the mid-1960s. It

is important to protect these Jurassic and Cretaceous rocks from being used as building materials or taken as souvenirs.

The Site is of special biological importance. It has a sparse but diverse flora of both calcicolous and calcifuge plants and cyanobacteria associated with the lavas and basalts, respectively. Basaltic plugs are particularly well-vegetated. Several rare cryptogams and the two native vascular plants (*Colobanthus quitensis* and *Deschampsia antarctica*) occur at several sites. There are several coastal and inland lakes, the latter having a particularly important biota including aquatic mosses, and serve as breeding sites for the midge *Parochlus steineni*, the only native winged insect in the Antarctic and with exceptionally restricted distribution. The only other Antarctic dipteran, the apterous *Belgica antarctica*, occurs in stands of wet moss.

The Site is also unique in possessing the greatest concentration of historical sites in Antarctica, namely the remains of refuges, together with contemporary artefacts, and shipwrecks of early nineteenth century sealing expeditions.

It is important that both the biological and archaeological features are also afforded protection.

(iii) *Outline of research*

A long-term geological and palaeontological research programme was established in 1964. The main objectives are the description of sediments and fossils found in this area. Botanical, zoological, limnological, ornithological and archaeological investigations have also been undertaken throughout the Site at various times since the late 1950s.

(iv) *Date of expiry of designation*

31 December 2001.

(v) *Access points*

None defined.

(vi) *Pedestrian and vehicular routes*

Vehicles should not enter the Site, except in an emergency. Helicopters should land only on unvegetated ground at least 500 m from any bird or seal concentrations, or freshwater bodies.

(vii) *Other kinds of scientific investigations which would not cause harmful interference*

Scientific research other than archaeological, biological and geological should be kept to a minimum.

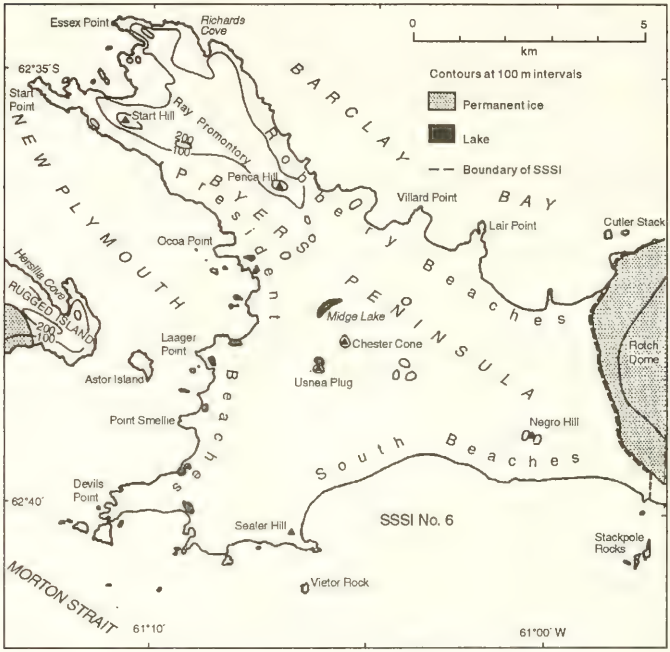
(viii) *Scientific sampling*

Samples of rocks or biological specimens should only be taken for compelling scientific purposes.

(ix) *Other restraints*

Buildings and other facilities should not be erected in the Site. All non-human waste should be removed from the Site. No combustible waste should be incinerated within the Site. There should be no interference of any sealers' refuges (huts, caves, etc) nor removal of any associated artefacts (including implements, timbers, fabrics, etc) from these features or from the beaches. No skeletal remains of any animal should be moved within or removed from the Site.

Site of Special Scientific Interest No. 6



XVI - 6

ANTARCTIC PROTECTED AREA SYSTEM

Specially Protected Areas Revised Descriptions and Proposed Management Plans for Specially Protected Areas

The Representatives,

Recalling Recommendation XV-8 and XV-9;

Noting that revised Area Descriptions and proposed Management Plans have been approved by the Scientific Committee on Antarctic Research (SCAR);

Recommend to their Governments that for the Specially Protected Sites listed below:

(i) the Descriptions inserted in Annex B, Specially Protected Areas, of the Agreed Measures for the Conservation of Antarctic Fauna and Flora be deleted;

(ii) that the Descriptions and Management Plans of Specially Protected Areas, annexed to this Recommendation, be inserted in Annex B, Specially Protected Areas, of the Agreed Measures for the Conservation of Antarctic Fauna and Flora.

The Specially Protected Areas involved are:

Site No. 8: Dion Islands, Marguerite Bay, Antarctic Peninsula
Site No. 9: Green Island, Berthelot Islands, Antarctic Peninsula
Site No. 13: Moe Island, South Orkney Islands
Site No. 14: Lynch Island, South Orkney Islands
Site No. 15: Southern Powell Island, and adjacent islands, South Orkney Islands
Site No. 16: Coppermine Peninsula, Robert Island, South Shetland Islands
Site No. 18: North Coronation Island, South Orkney Islands
Site No. 19: Lagotellerie Island, Marguerite Bay, Antarctic Peninsula

ANNEX TO RECOMMENDATION XVI - 6

Management Plan for Specially Protected Area No. 8 Dion Islands, Marguerite Bay, Antarctic Peninsula

1. **Geographical location**

The Dion Islands (67°52'S, 68°43'W) are a small group of low-lying rocky islands lying about 13 km south of the southern end of Adelaide Island, in the north-western part of Marguerite Bay.

2. **Management Plan**

(i) *Description of Area*

The Area comprises all of the Dion Islands archipelago, which lie within an area of about 12 km^2, together with the intervening sea. The islands and islets are small, rocky and often precipitous, notably Emperor Island which is also the highest (46 m altitude). The main islands are the largest of the Courtier Islands group (c. 8 ha), Emperor Island (c. 5 ha) and the largest of the Consort Islands group (c. 3 ha). Low lying areas occur on the two largest islands. There are a few small permanent ice patches, but there are no streams or permanent pools.

(ii) *Reason for designation*

The Area possesses the only known breeding population of Emperor penguins (*Aptenodytes forsteri*) on the west side of the Antarctic Peninsula. It is situated on a low-lying raised beach and rocky headland in the south-eastern part of Emperor Island. It is also the most northerly and probably the smallest colony (annual numbers fluctuate between about 50 and 500 pairs), and is one of only two in which breeding occurs on land (see also SPA No. 1). It is also the most isolated Emperor colony, being about 2,500 km (by sea) from the nearest other known rookery. Other breeding birds within the Area include a small colony of Adélie penguins (*Pygoscelis adeliae*) near the Emperor penguin colony, and about 200 pairs of Blue-eyed shags (*Phalacrocorax atriceps*) on the precipitous north side of the same island.

(iii) *Date of designation and originator*

November 1966, Recommendation IV-8, by UK.

(iv) *Access points*

None specified, but access should be from the sea; landing on Emperor Island should be at least 100 m from the Emperor penguin colony or any non-breeding aggregations of these birds.

(v) *Entry permit requirements*

Entry into the Area is only in strict accordance with a current permit, issued by a Participating Government or its authorised representative, specifically for a compelling scientific purpose which cannot be served elsewhere, or for site inspection, and which will not jeopardise any aspect of the natural ecosystem or its biota within the Area (see Antarctic Treaty Agreed Measures for the Conservation of Antarctic Fauna and Flora, Article VIII). Details of the visit should be included in the national annual report of Exchange of Information for the same Antarctic season in which the activities were carried out.

(vi) *Prohibitions*

To avoid or minimise human impact it is prohibited to:

(a) land a helicopter within the Area;
(b) overfly the Area by any aircraft below 250 m above the highest point;
(c) use any of the Area's coves, bays or intervening water for anchoring or mooring seacraft, except in accordance with the permit;
(d) incinerate, bury or otherwise dispose of any non-human waste within the Area; all such waste must be removed from the Area;
(f) leave depots of fuel, food, or any other supplies within the Area unless they are further required within the same season, at the end of which they must be removed;
(g) erect any form of building within the Area.

(vii) *Pedestrian routes*

None specified, but every precaution must be taken to avoid disturbance of any breeding bird or seal, particularly Emperor penguins which pedestrians should not approach closer than 50 m, unless required as specified in the permit.

(viii) *Scientific research and sampling*

All activities must conform strictly with those specified in the permit to enter the Area.

(ix) *Inspection and maintenance*

Inspection visits to the Area should be made at least once every five years to assess the state of the site and to monitor any significant biological or environmental changes. Other visits should be made as necessary to maintain boundary markers, notices, etc.

Management Plan for Specially Protected Area No. 9 Green Island, Berthelot Islands, Antarctic Peninsula

1. Geographical location

Green Island (65°19′S, 64°10′W) is a small island on the north side of the Berthelot Islands group, lying between the north-west side of Collins Bay and Grandidier Channel, about 3 km off the Graham Coast of the mid-west Antarctic Peninsula.

2. Management Plan

(i) *Description of Area*

The Area comprises all of Green Island, a small rocky island lying about 0.25 km to the north of the largest of the Berthelot Islands. It is about 500 m from north to south and 300 m from east to west, rising to a dome-shaped peak at about 80 m altitude. The island rises steeply on all sides, with high precipitous cliffs on the south and east sides. Along the north side is a gently sloping rock platform. There are several permanent snow patches with the largest occurring to the south and east of the summit. There are no streams or pools.

(ii) *Reason for designation*

Green Island is extensively vegetated on the north facing slopes and has especially well-developed continuous banks of moss turf formed by *Chorisodontium aciphyllum* and *Polytrichum alpestre* which, over much of their extent, overlie peat of more than 1 m in depth. Antarctic hair grass (*Deschampsia antarctica*) is frequent in small patches near the shag colony. The island has two important bird colonies. A large Blue-eyed shag (*Phalacrocorax atriceps*) colony with about 250 nests occurs on the steep, rocky north-west corner; this is one of the largest shag colonies on the Antarctic Peninsula. There are also large numbers of Brown skuas (*Catharacta lonnbergii*) and a few South Polar skuas (*C. maccormicki*) and hybrids, but only a few of the former are known to breed.

(iii) *Date of designation and originator*

November 1966, Recommendation IV-9, by UK.

(iv) *Access points*

None specified, but landings by boat or helicopter are easiest on the north side of the island.

(v) *Entry permit requirement*

Entry into the Area is only in strict accordance with a current permit, issued by a Participating Government or its authorised representative, specifically for compelling scientific purpose which cannot be served elsewhere, or for site inspection, and which will not jeopardise any aspect of the natural ecosystem or its biota within the Area (see Antarctic Treaty Agreed Measures for the Conservation of Antarctic Fauna and Flora Article VIII). Details of the visit should be included in the national annual report of Exchange of Information for the same Antarctic season in which the activities were carried out.

(vi) *Prohibitions*

To avoid or minimise human impact it is prohibited to:

(a) land a helicopter within the Area except on the rock platform near sea level on the north side of the island;
(b) overfly the Area by any aircraft below 250 m above the highest point;
(c) use any of the Area's coves for anchoring or mooring seacraft, except in accordance with the permit;
(d) incinerate, bury or otherwise dispose of any non-human waste within the Area; all such waste must be removed from the Area;
(e) leave depots of fuel, food, or any other supplies within the Area unless they are further required within the same season, at the end of which they must be removed;
(f) erect any form of building within the Area.

(vii) *Pedestrian routes*

None specified, but every precaution must be taken to cause minimal damage to the luxurient moss banks and avoid disturbance of any breeding bird or seal, unless required as specified in the permit.

(viii) *Scientific research and sampling*

All activities must conform strictly with those specified in the permit to enter the Area.

(ix) *Inspection and maintenance*

Inspection visits to the Area should be at least once every five years to assess the state of the site and to monitor any significant biological or environmental changes. Other visits should be made as necessary to maintain boundary markers, notices, etc.

Management Plan for Specially Protected Area No. 13
Moe Island, South Orkney Islands

1. Geographical location

Moe Island (60°45'S, 45°41'W) is a small island lying about 0.5 km off the south-west extremity of Signy Island, South Orkney Islands, from which it is separated by Fyr Channel.

2. Management Plan

(i) *Description of Area*

The Area is an irregularly shaped island about 1.8 km from north-east to southwest and 1 km from north-west to south-east. It rises precipitously on the northeastern and south-eastern sides to Snipe Peak (226 m altitude); there is a subsidiary summit above South Point (102 m altitude) and lower hills on each of three promontories on the western side above Corral Point (92 m), Conroy Point (89 m) and Spaull Point (56 m). Small areas of permanent ice remain on the east and south facing slopes, with late lying snow patches on the steeply dipping western slopes. There are no streams or pools.

(ii) *Reason for designation*

Moe Island provides an excellent representative sample of the maritime Antarctic terrestrial ecosystem, with particularly well-developed stands of vegetation typical of the South Orkney Islands. The dominant plant communities are *Andreaea-Usnea* fellfield and banks of *Chorisodontium-Polytrichum* moss turf (the main stand of which is continuous over 5 ha, including large areas of eroded peat, and represents the largest known example of this community type in the Antarctic). The cryptogamic flora and arthropod fauna are diverse. There are five colonies of Chinstrap penguins (*Pygoscelis antarctica*) totalling about 11,000 pairs. Numerous other birds breed on the island, notably about 2,000 pairs of Cape petrels (*Daption capensis*) and large numbers of Antarctic prions (*Pachyptila desolata*). Weddell seals (*Leptonychotes weddellii*) and Leopard seals (*Hydrurga leptonyx*) are sometimes frequent in the bays on the west side of the island. An increasing number of immature bull Fur seals (*Arctocephalus gazella*) come ashore on the north side of Landing Cove and are causing some damage to vegetation. However, the nature of the terrain should restrict the animals to this small headland.

Because of the long-established intensive experimental field research and the very extensive destruction of the lowland terrestrial and freshwater ecosystem caused by Fur seals on neighbouring Signy Island, Moe Island serves as an important control side with which future comparisons may be made with particular regard to biological and environmental change in the region.

(iii) *Date of designation and originator*

November 1966, Recommendation IV-13, by UK.

(iv) *Access points*

None specified, but preferably and most safely, from the sea at the north-east corner of Landing Cove.

(v) *Entry permit requirement*

Entry into the Area is only in strict accordance with a current permit, issued by a Participating Government or its authorised representative, specifically for a compelling scientific purpose which cannot be served elsewhere or for site inspection, and which will not jeopardise any aspect of the natural ecosystem or its biota within the Area (see Antarctic Treaty Agreed Measures for the Conservation of Antarctic Fauna and Flora, Article VIII). Details of the visit should be included in the national annual report of Exchange of Information for the same Antarctic season in which the activities were carried out.

(vi) *Prohibitions*

To avoid or minimise human impact it is prohibited to:

(a) land a helicopter within the Area, except on the col between hill 89 m and the western slope of Snipe Peak, to the south of Landing Cove;
(b) overfly the Area by any aircraft below 250 m above the highest point except for access to the landing area specified in (a), which should be directly from the cove to the north or south avoiding any seabird colonies;
(c) use any of the Area's coves or bays for anchoring or mooring seacraft except in accordance with the permit;
(d) incinerate, bury or otherwise dispose of any non-human waste within the Area; all such waste must be removed from the Area;
(e) leave depots of fuel, food, or any other supplies within the Area unless they are further required within the same season, at the end of which they must be removed;
(f) erect any form of building within the Area.

(vii) *Pedestrian routes*

None specified, but every precaution must be taken to avoid disturbance of any breeding bird or seal or stand of vegetation, unless required as specified in the permit; in particular, stands of *Polytrichum-Chorisodontium* moss banks and areas of eroding peat should be avoided wherever possible.

(viii) *Scientific research and sampling*

All activities must conform strictly with those specified in the permit to enter the Area.

(ix) *Inspection and maintenance*

Inspection visits to the Area should be made once every year to assess the state of the site and to monitor any significant biological or environmental changes, particularly with regard to increasing damage caused by Fur seals to the island's vegetation. Such visits should also be used to maintain boundary markers, notices, etc.

Management Plan for Specially Protected Area No. 14 Lynch Island, South Orkney Islands

1. **Geographical location**

Lynch Island (60°40′S, 45°38′W) is a small island situated at the east end of Marshall Bay, in the mid south coast of Coronation Island and directly to the north of Signy Island, South Orkney Islands.

2. **Management Plan**

(i) *Description of Area*

The Area is a small rocky island, c. 200 m from the south coast of Coronation Island, and about 500 m from east to west and 300 m from north to south, rising to a flat plateau with a maximum altitude of 33 m. On the south, east and west sides there are low cliffs up to 20 m high, and boulder-filled gullys, while the northern side has a low cliff below a rock terrace at about 5-8 m altitude. There are no streams or pools, and only a few small late-lying snow patches occur on the southern side of the island.

(ii) *Reason for designation*

Lynch Island supports one of the most extensive and dense stands of Antarctic hair grass (*Deschampsia antarctica*) known in the Treaty area. The only other Antarctic flowering plant, Antarctic pearlwort (*Colobanthus quitensis*), is also abundant. The cryptogamic vegetation is typical of the region, but several

species of moss are unusually fertile here (notably *Polytrichum alpinum* and *Muelleriella crassifolia*). Beneath the grass swards on the moist north-facing slope a shallow loam-like earth resembling tundra brown soil has developed and contains a rich invertebrate fauna. Moist moss in rock crevices on the north side of the island harbours a rare terrestrial enchytraeid worm. Breeding birds are poorly represented, but most species of Antarctic seals are common around the island and occasionally ashore (particularly an increasing number of immature bull Fur seals, *Arctocephalus gazella*, which come ashore in summer).

(iii) *Date of designation and originator*

November 1966, Recommendation IV-14, by UK

(iv) *Access points*

Access should be from the sea landing at a prominent low rocky promontory or the adjacent cove to the west, on the north side of the island.

(v) *Entry permit requirement*

Entry into the Area is only in strict accordance with a current permit issued by a Participating Government or its authorised representative, specifically for a compelling scientific purpose which cannot be served elsewhere or for site inspection, and which will not jeopardise any aspect of the natural ecosystem or its biota within the Area (see Antarctic Treaty Agreed Measures for the Conservation of Antarctic Fauna and Flora Article VIII). Details of the visit should be included in the national annual report of Exchange of Information for the same Antarctic season in which the activities were carried out.

(vi) *Prohibitions*

To avoid or minimise human impact it is prohibited to:

(a) drive any vehicle within the Area;
(b) land a helicopter within the Area;
(c) overfly the Area by any aircraft below 250 m above the highest point;
(d) use any of the Area's coves or bays for anchoring or mooring seacraft, except in accordance with the permit;
(e) incinerate, bury or otherwise dispose of any non-human waste within the Area; all such waste must be removed from the Area;
(f) leave depots of fuel, food, or any other supplies within the Area unless they are further required within the same season, at the end of which they must be removed;
(g) erect any form of building within the Area.

(vii) *Pedestrian routes*

None specified, but every precaution must be taken to avoid disturbance of any breeding bird or seal or stand of vegetation, unless required as specified in the permit; in particular, areas of *Deschampsia* and *Colobanthus* should be avoided wherever possible.

(viii) *Scientific research and sampling*

All activities must conform strictly with those specified in the permit to enter the Area.

(ix) *Inspection and maintenance*

Inspection visits to the Area should be made at least once every year to assess the state of the site and to monitor any significant biological or environmental changes, particularly with regard to increasing damage caused by Fur seals to the island's grass-dominated communities. Such visits should also be used to maintain boundary markers, notices, etc.

Management Plan for Specially Protected Area No. 15
Southern Powell Island and adjacent islands, South Orkney Islands

1. **Geographical location**

Powell Island (60°45′S, 45°02′W) is the third largest of the South Orkney Islands, lying between Coronation Island to the west and Laurie Island to the east.

2. **Management Plan**

(i) *Description of Area*

The Area includes all of Powell Island south of the latitude of the southern summit of John Peaks (375 m altitude), together with Michelsen Island (a peninsula rising to 38 m altitude and separated from a long promontory at the south end of Powell Island by a low isthmus which floods at high tide) and adjacent unnamed rocky islets, Christoffersen Island (96 m altitude) to the west, Grey Island (43 m altitude) to the south, and Fredriksen Island (about 300 m altitude) to the east. All but southern Powell Island (Crutchley Ice Piedmont) are mainly ice-free in summer. All intervening sea is included within the Area.

(ii) *Reason for designation*

The Area is of exceptional biological interest supporting limited stands of vegetation typical of biotically influenced coastal habitats of the region, and considerable populations of a diversity of bird and seal species. The bryophyte vegetation is best developed at the extreme north-west corner of the Area on south-west Powell Island, on Christoffersen Island and locally on northern Fredriksen Island; elsewhere there are extensive nitrophilous lichen communities on the rocks and cliffs. There are several biotically contaminated melt pools and streams, especially on the beach on the east side of southern Powell Island where Crutchley Ice Piedmont is receding.

Large numbers of penguins and petrels breed throughout the Area. There are about 50,000 breeding pairs of Chinstrap penguins (*Pygoscelis antarctica*) of which about 80% occur on Fredriksen Island, and about the same number of Adélie penguins (*P. adeliae*) of which almost all occur in the southern Powell-Michelsen Island area. There are about 3,000 pairs of Gentoo penguins (*P. papua*) breeding on the southern promontory of Powell Island, Michelsen Island and Christoffersen Island. There are also a few pairs of Macaroni penguins (*Eudyptes chrysolophus*). Other breeding birds include Southern Giant petrels (*Macronectes giganteus*), Cape petrels (*Daption capensis*), Snow petrels (*Pagodroma nivea*), Wilson's storm petrels (*Oceanites oceanicus*), Blue-eyed shags (*Phalacrocorax atriceps*), Dominican gulls (*Larus dominicanus*), Antarctic terns (*Sterna vittata*), Brown skuas (*Catharacta lonnbergii*), Sheathbills (*Chionis alba*), and possibly Antarctic prions (*Pachyptila desolata*) and Black bellied storm petrels (*Fregatta tropica*). The isthmus between southern Powell Island and Michelsen Island is the longest-known breeding site in the Antarctic for Fur seals (*Arctocephalus gazella*) since their extermination in the nineteenth century. However, the small number of pups born annually has not increased substantially; a few pups are also born on suitable beaches on Fredriksen Island. Other seals are frequent on the beaches, e.g. Elephant seals (*Mirounga leonina*), Weddell seals (*Leptonychotes weddellii*) and Leopard seals (*Hydrurga leptonyx*), and Crabeater seals (*Lobodon carcinophagus*) are occasionally seen on ice floes within the Area.

(iii) *Date of designation and originator*

November 1966, Recommendation IV-15, by UK

(iv) *Access points*

None specified, but access should preferably be from the sea.

(v) *Entry permit requirement*

Entry into the Area is only in strict accordance with a current permit issued by a Participating Government or its authorised representative, specifically for a compelling scientific purpose which cannot be served

elsewhere or for site inspection, and which will not jeopardise any aspect of the natural ecosystem or its biota within the Area (see Antarctic Treaty Agreed Measures for the Conservation of Antarctic Fauna and Flora Article VIII). Details of the visit should be included in the national annual report of Exchange of Information for the same Antarctic season in which the activities were carried out.

(vi) *Prohibitions*

To avoid or minimise human impact it is prohibited to:

(a) drive any vehicle within the Area;
(b) land a helicopter within the Area except on the north-eastern part of the beach on the east side of the promontory of southern Powell Island providing there are no aggregations of wildlife, or on unvegetated areas in the north of Fredriksen Island, both to be at least 0.5 km from any bird or seal colonies or aggregations;
(c) overfly the Area by any aircraft below 250 m above the highest point;
(d) use any of the Area's coves or bays for anchoring or mooring seacraft except in accordance with the permit; ships may anchor only in the strait between Michelsen and Fredriksen Island;
(e) incinerate, bury or otherwise dispose of any non-human waste within the Area; all such waste must be removed from the Area;
(f) leave depots of fuel, food, or any other supplies within the Area, unless they are further required within the same season, at the end of which they must be removed;
(g) erect any form of building within the Area.

(vii) *Pedestrian routes*

None specified, but every precaution must be taken to avoid disturbance of any breeding bird (especially Giant petrels, which pedestrians should not approach closer than 100 m) or seal or stand of vegetation, unless required as specified in the permit.

(viii) *Scientific research and sampling*

All activities must conform strictly with those specified in the permit to enter the Area.

(ix) *Inspection and maintenance*

Inspection visits to the Area should be made at least once every five years to assess the state of the site and to monitor any significant biological or environmental changes. Other visits should be made as necessary to maintain boundary markers, notices, etc.

Management Plan for Specially Protected Area No. 16 Coppermine Peninsula, Robert Island, South Shetland Islands

1. Geographical location

Coppermine Peninsula (62°23′S, 59°42′W) is situated on the west side of Robert Island, which lies between Nelson Island to the east and Greenwich Island to the west, midway along the South Shetland Islands archipelago.

2. Management Plan

(i) *Description of Area*

The Area comprises all land west of a north-south line across the isthmus between Carlota Cove and Coppermine Cove, 100 m west of a small group of Chilean refuge huts. The Peninsula is about 1.7 km from south-east to north-west and up to 0.6 km from north-east to south-west, and is largely surrounded by precipitous cliffs. There are three prominent low hills which reach a highest point at about 220 m. The eastermost lies close to the isthmus; there is a central hill composed of basaltic columns referred to as "Neptune's Cathedral", and the westernmost is situated above Fort William at the extreme west of the Peninsula. The isthmus (mainly outside the Area) is a 250 m wide raised beach reaching about 10 m altitude.

Much of the higher ground is permanently ice covered. There are numerous small streams and pools in summer.

(ii) *Reason for designation*

Coppermine Peninsula is a biologically rich area with a diverse biota typical of the South Shetland Islands. It supports a wide range of plant communities with associated invertebrate fauna; the vertebrate fauna is also particularly well represented. The outstanding feature of the vegetation is a 1.5 ha closed carpet of the mosses *Calliergidium austro-stramineum, Calliergon sarmentosum* and *Drepanocladus uncinatus*, representing one of the largest continuous moss stands in the Antarctic. It overlies a thick layer of wet moss peat. Large stands of the foliose cyanobacterium *Nostoc commune* occur on moist slopes and in depressions. A large number of bryophyte and lichen species occur within the Area, and Antarctic hair grass (*Deschampsia antarctica*) is frequent. A small colony of Chinstrap penguins (*Pygoscelis antarctica*) occurs at Fort William. There are about 30 small colonies of Southern Giant petrels (*Macronectes giganteus*). Other breeding species include about 2,000 nests of Wilson's storm petrels (*Oceanites oceanicus*) in at least 13 colonies, up to 1,000 Antarctic terns (Sterna vittata) in nine colonies, 300-400 Dominican gulls (*Larus dominicanus*) in ten colonies, and numerous Brown skuas (*Catharacta lonnbergii*). Seals are common around the peninsula and frequently haul out at the isthmus, notably Elephant seals (Mirounga leonina), Weddell seals (*Leptonychotes weddellii*) and increasingly large numbers of Fur seals (*Arctocephalus gazella*).

(iii) *Date of designation and originator*

November 1966, Recommendation IV-10, by Chile.

(iv) *Access points*

Access should be from the isthmus outside the Area by sea from Coppermine Cove or Carlota Cove, or by helicopter also to the east of the Area.

(v) *Entry permit requirement*

Entry into the Area is only in strict accordance with a current permit, issued by a Participating Government or its authorised representative, specifically for a compelling scientific purpose which cannot be served elsewhere or for site inspection, and which will not jeopardise any aspect of the natural ecosystem or its biota within the Area (see Antarctic Treaty Agreed Measures for the Conservation of Antarctic Fauna and Flora Article VIII). Details of the visit should be included in the national annual report of Exchange of Information for the same Antarctic season in which the activities were carried out.

(vi) *Prohibitions*

To avoid or minimise human impact it is prohibited to:

(a) drive any vehicle within the Area;
(b) land a helicopter within the Area;
(c) overfly the Area by any aircraft below 250 m above the highest point;
(d) use any of the Area's coves or bays for anchoring or mooring seacraft, except in accordance with the permit;
(e) incinerate, bury or otherwise dispose of any non-human waste within the Area; all such waste must be removed from the Area;
(f) leave depots of fuel, food, or any other supplies within the Area unless they are required within the same season, at the end of which they must be removed;
(g) erect any form of building within the Area.

(vii) *Pedestrian routes*

None specified, but every precaution must be taken to avoid disturbance of any breeding bird (especially Giant petrels, which pedestrians should not approach closer than 100 m) or seal or stand of vegetation (especially the extensive carpet of moss on the isthmus), unless required as specified in the permit.

(viii) *Scientific research and sampling*

All activities mst conform strictly with those specified in the permit to enter the Area.

(ix) *Inspection and maintenance*

Inspection visits to the Area should be made at least once every three years to assess the state of the site and to monitor any significant biological or environmental changes. Other visits should be made as necessary to maintain boundary markers, notices, etc.

Management Plan for Specially Protected Area No. 18 North Coronation Island, South Orkney Islands

1. **Geographical location**

Coronation Island (60°38′S, 45°35′W) is the largest of the South Orkney Islands, situated at the west end of the archipelago.

2. **Management Plan**

(i) *Description of Area*

The Area lies on the central north side of Coronation Island. It is bounded to the east by Foul Point (60°32′S, 45°29′W) and to the west by Conception Point (60°31′S, 45°41′W); the entire area between these points, together with the intervening sea, is included in the site. The eastern boundary follows a precipitous ridge 6 km southward to a position at 2,500 ft (c. 750 m) altitude immediately to the west of Mount Nivea summit (60°35′S, 45°29′W), thence west-south-westward for 5.5 km to a position at 3,000 ft (c. 900 m) altitude to the north-east of Wave Peak summit (60°37′S, 45°36′W), and from there 4 km westward across the Brisbane Heights plateau, then 4 km north-north-west to an unnamed summit at 3,532 ft (c. 1,060 m) and north for 6 km to Conception Point. The summits of Mount Nivea and Wave Peak and the col known as High Stile are outside the Area. Ommanney Bay and the unnamed bay to the west are included within the Area, south of the boundary between Conception and Foul points (11.5 km).

(ii) *Reason for designation*

The Area embraces areas of coastal ice-free terrain (Conception, Prong and Foul Points) with large seabird colonies and lichen-dominated cliffs, and permanent icefields (two major glaciers and ice cliffs rising to the Brisbane Heights plateau) which provide an excellent representative area of a pristine ice environment near the northern limit of the maritime Antarctic and Antarctic Treaty area. The interrelated terrestrial, ice and marine components of the Area comprise an integrated example of the coastal permanent ice and sublittoral ecosystems typical of the maritime Antarctic environment.

(iii) *Date of designation and originator*

October 1985, Recommendation XIII-10, by UK

(iv) *Access points*

None specified.

(v) *Entry permit requirement*

Entry into the Area is only in strict accordance with a current permit, issued by a Participating Government or its authorised representative, specifically for a compelling scientific purpose which cannot be served elsewhere or for site inspection, and which will not jeopardise any aspect of the natural ecosystem or its biota within the Area (see Antarctic Treaty Agreed Measures for the Conservation of Antarctic Fauna and Flora

Article VIII). Details of the visit should be included in the national annual report of Exchange of Information for the same Antarctic season in which the activities were carried out.

(vi) *Prohibitions*

To avoid or minimise human impact it is prohibited to:

(a) drive any vehicle within the Area;
(b) land a helicopter within 0.5 km of any bird or seal colonies or aggregations, or on any of the icefields;
(c) overfly Conception, Prong or Foul Points below 250 m above their respective highest points;
(d) use any of the Area's coves or bays for anchoring or mooring seacraft, except in accordance with the permit; ships must not enter the Area;
(e) incinerate, bury or otherwise dispose of any non-human waste within the Area; all such waste, including human waste in all ice-covered areas, must be removed from the Area;
(f) leave depots of fuel, food, or any other supplies within the Area, unless they are further required within the same season, at the end of which they must be removed;
(g) erect any form of building within the Area.

(vii) *Pedestrian routes*

None specified, but every precaution must be taken to avoid disturbance of any breeding bird or seal.

(viii) *Scientific research and sampling*

All activities must conform strictly with those specified in the permit to enter the Area.

(ix) *Inspection and maintenance*

Inspection visits to the Area should be made no more than once every five years to assess the state of the site and to monitor any significant biological or environmental changes. Other visits should be made as necessary to maintain boundary markers, notices, etc.

Management Plan for Specially Protected Area No. 19
Lagotellerie Island, Marguerite Bay, Antarctic Peninsula

1. Geographical location

Lagotellerie Island (67°53′S, 67°24′W) lies about 3 km west of the southern part of Horseshoe Island, Marguerite Bay, south-west Antarctic Peninsula.

2. Management Plan

(i) *Description of Area*

Lagotellerie Island is about 2 km from east to west by about 1 km from north to south, and rises steeply to twin summits of c. 270 and 290 m altitude separated by a broad saddle. The north side of the island is largely snow-free with extensive low-lying ground. The south and east sides have precipitous cliffs up to 180 m high; much of the north side also has steep cliffs dissected by gullys and traversed by broad rock terraces. There are no permanent streams or pools.

(ii) *Reason for designation*

The island has a relatively diverse flora and luxuriant development of plant communities, representative of the southern maritime Antarctic region. The north side supports an abundance of Antarctic hair grass (*Deschampsia antarctica*) which on some of the terraces forms closed swards up to 10 m^2. Antarctic pearlwort (*Colobanthus quitensis*) is also frequent. Both species are close to the southern limit of their range. There is also a rich cryptogamic flora with well-developed communities containing several rare mosses and lichens. Beneath the closed grass and moss stands a rich loamy earth up to 25 cm deep has developed, with a rich

invertebrate fauna and microbiota. The island is one of the southernmost sites for the apterous midge *Belgica antarctica*. There is a colony of about 1,000 pairs of Adélie penguins (*Pygoscelis adeliae*) at the southeast corner of the island. Here, there is also a small colony of about 30 pairs of Blue-eyed shags (*Phalacrocorax atriceps*), which is one of the farthest south breeding sites for the species. Brown and South Polar skuas (*Catharacti lonnbergii* and *C. maccormicki*) are abundant and several pairs of each nest on this island.

(iii) *Date of designation and proposer nation*

October 1985, Recommendation XIII-11, by UK

(iv) *Access points*

None specified.

(v) *Entry permit requirement*

Entry into the Area is only in strict accordance with a current permit, issued by a Participating Government or its authorised representative, specifically for a compelling scientific purpose which cannot be served elsewhere or for site inspection, and which will not jeopardise any aspect of the natural ecosystem or its biota within the Area (see Antarctic Treaty Agreed Measures for the Conservation of Antarctic Fauna and Flora Article VIII). Details of the visit should be included in the national annual report of Exchange of Information for the same Antarctic season in which the activities were carried out.

(vi) *Prohibitions*

To avoid or minimise human impact it is prohibited to:

(a) land a helicopter within the Area except on the low-lying unvegetated ground in the mid north side of the island and on the saddle between the two peaks;
(b) overfly the Area by any aircraft below 250 m above the highest point;
(c) use any of the Area's coves for anchoring or mooring seacraft, except in accordance with the permit;
(d) incinerate, bury or otherwise dispose of any non-human waste within the Area; all such waste must be removed from the Area;
(e) leave depots of fuel, food, or any other supplies within the Area unless they are further required within the same season, at the end of which they must be removed;
(f) erect any form of building within the Area.

(vii) *Pedestrian routes*

None specified, but every precaution must be taken to avoid disturbance of any breeding bird or seal or stand of vegetation, unless required as specified in the permit.

(viii) *Scientific research and sampling*

All activities must conform strictly with those specified in the permit to enter the Area.

(ix) *Inspection and maintenance*

Inspection visits to the Area should be made at least once every five years to assess the state of the site and to monitor any significant biological or environmental changes. Other visits should be made as necessary to maintain boundary markers, notices, etc.

XVI - 7

ANTARCTIC PROTECTED AREA SYSTEM

Sites of Special Scientific Interest: Extension of Designation

The Representatives,

Recalling Recommendations VIII-3, VIII-4, XII-5 and XIII-7;

Noting that:

(1) in accordance with paragraph 2 of Recommendation VIII-3, the Scientific Committee on Antarctic Research (SCAR), at its Twenty-First Meeting at Sao Paulo, Brazil (24-27 July 1990) had reviewed the eight Sites of Special Scientific Interest designated in Recommendations VIII-4, XIII-8 and XIV-5;

(2) experience of the practical effect of the Management Plans for these sites has shown them to be an effective means of reducing the risks of harmful interference in areas of special scientific interest;

(3) no changes to the Management Plans of these sites had been proposed by SCAR.

Recommend to their Governments that:

(i) The date of expiry of designation of Sites:

No. 4 - Cape Crozier, Ross Island;
No. 5 - Fildes Peninsula, King George Island, South Shetland Islands;
No. 7 - Haswell Island;
No. 10 - Caughley Beach, Cape Bird, Ross Island;
No. 11 - Tramway Ridge, Mt Erebus, Ross Island;
No. 12 - Canada Glacier, Lake Fryxell, Taylor Valley, Victoria Land;
No. 18 - North-West White Island, McMurdo Sound

be extended to 31 December 2001; and that,

(ii) The date of expiry of designation of Site:

No. 22 - Yukidori Valley, Langhovde, Lutzow - Holm Bay

be extended to 31 December 2003.

(iii) They use their best endeavours to ensure, in accordance with paragraphs 3 and 4 of Recommendation VIII-3, that the Management Plans of these Sites are observed.

XVI - 8

ANTARCTIC PROTECTED AREA SYSTEM

Specially Protected Area No. 22 Cryptogam Ridge; Mount Melbourne, Victoria Land

The Representatives,

Recalling Recommendations XV-8 and XV-9;

Noting that a Management Plan has been prepared and approved by the Scientific Committee on Antarctic Research (SCAR);

Considering that Cryptogam Ridge on the southern rim of the main summit crater of Mount Melbourne includes areas of geothermal activity which are ice-free and surrounded by numerous ice hummocks and scattered ice towers, and that the geothermal ground supports a unique community of bryophytes, algae and microbiota including very rare species, and that this fragile habitat is of exceptional biological interest and, to maintain its unique pristine state, should be afforded maximum protection from human influence;

Recommend to their Governments that the following area of outstanding scientific interest be inserted in Annex B, Specially Protected Areas, of the Agreed Measures for the Conservation of Antarctic Fauna and Flora, together with the annexed Management Plan:

Specially Protected Area No. 22

Cryptogam Ridge, Mount Melbourne, Victoria Land. Mount Melbourne (74°21′S, 164°42′E) lies between Wood Bay and Campbell Glacier, northern Victoria Land, on the western side of the Ross Sea.

ANNEX TO RECOMMENDATION XVI - 8

Specially Protected Area No. 22
Cryptogam Ridge, Mount Melbourne, Victoria Land

1. **Geographical location**

Mount Melbourne (74°21′S, 164°42′E) lies between Wood Bay and Campbell Glacier, northern Victoria Land, on the western side of the Ross Sea.

2. **Management Plan**

(i) *Description of Area*

The Area includes most of Cryptogam Ridge on the southern rim of the main summit crater (2,733 m altitude), and extends to about 1,200 m by 500 m. Geothermal activity occurs along about 300-400 m of the ridge and is marked by discontinuous areas of ice-free ground, surrounded by numerous ice hummocks up to 1 m high and scattered hollow ice towers up to several metres in diametre and 4 m high. The warm ice-free areas are mostly gently sloping with narrow terraces up to 1.5 m wide. More general details for the adjacent areas are given for the surrounding SSSI No. 24.

(ii) *Reason for designation*

The geothermal ground within the Area supports a unique community of bryophytes, algae and microbiota, including the only known occurrence in the Antarctic of the moss *Campylopus pyriformis* and the very rare continental occurrence of the liverwort *Cephaloziella exiliflora*, otherwise unknown above about 500 m elsewhere in the Antarctic. This site is comparable with the one other known high altitude geothermally influenced ice-free area near the summit of Mount Erebus. This fragile and sterile habitat is of exceptional biological interest and should be afforded maximum protection from human influence to maintain its unique pristine state.

(iii) *Date of designation and originator*

June 1990; New Zealand and Italy.

(iv) *Access points*

Access should be only from either end of Cryptogam Ridge and not from the ridge slopes.

(v) *Entry permit requirement*

Entry into the Area is only in strict accordance with a current permit, issued by a Participating Government or its authorised representative, specifically for a compelling scientific purpose which cannot be served elsewhere, or for site inspection, and which will not jeopardise any aspect of the natural ecosystem or its biota within the Area (see Antarctic Treaty Agreed Measures for the Conservation of Antarctic Fauna and Flora, Article VIII). Details of the visit should be included in the national annual report of Exchange of Information for the same Antarctic season in which the activities were carried out.

(vi) *Prohibitions*

To avoid or minimise human impact it is prohibited to:

(a) enter the Area without wearing sterile protective overclothing and footwear, to be provided by the supporting national operator;
(b) use any sampling or other equipment within the Area which has not been first sterilised using an acceptable method;
(c) land a helicopter within the Area; helicopters should land near the summit of Mount Melbourne only at a specified point in or adjacent to the main crater, no closer than 200 m from the boundary of the Area;
(d) incinerate, bury or otherwise dispose of any waste, including all human waste, within the Area; all such waste must be removed from the Area;
(e) bring into the Area any fuel or food, or leave any form of other supplies within the Area, other than markers required for monitoring studies;
(f) erect any form of building within the Area.

(vii) *Pedestrian routes*

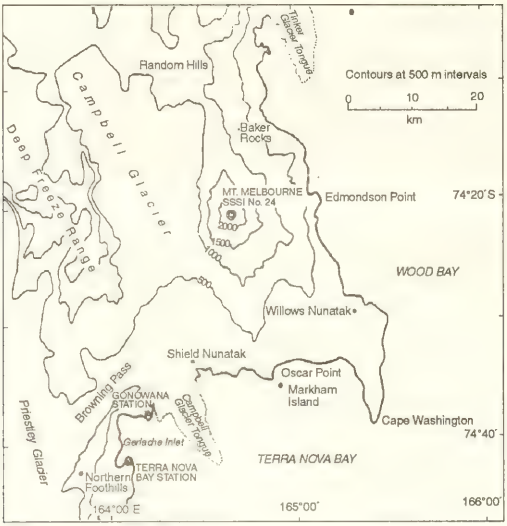
None specified, but pedestrians must not use the ridge crest as a way of access to parts of the surrounding SSSI. Extreme precaution must be taken to avoid disturbance of all ice-free ground or interference with ice structures within the Area, unless required as specified in the permit.

(viii) *Scientific research and sampling*

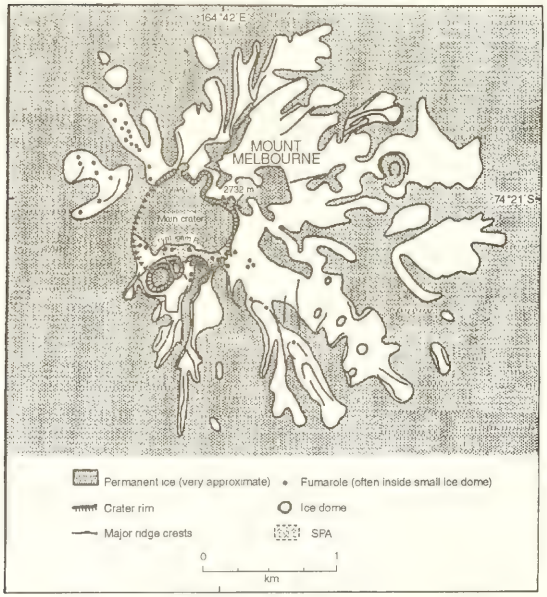
Where at all possible collections and general observations of geothermal soils and organisms should be made from positions outside the Area, unless directly related to the monitoring of Cryptogam Ridge; all activities within the Area must conform strictly with those specified in the permit to enter the Area.

(ix) *Inspection and maintenance*

Inspection visits should be made to the Area no more than once every five years to assess the state of the site and to monitor any significant biological or environmental changes. Other visits should be made as necessary to maintain boundary markers, notices, etc.



Specially Protected Area No. 22



XVI - 9

ANTARCTIC PROTECTED AREA SYSTEM

Specially Protected Area No. 23
Forlidas Pond and Davis Valley Ponds

The Representatives,

Recalling Recommendations XV-8 and XV-9;

Noting that a Management Plan has been prepared and approved by the Scientific Committee on Antarctic Research (SCAR);

Considering that the Area contains some of the most southerly freshwater ponds known in Antarctica containing plant life, and that these ponds and their immediate catchments should be protected as examples of unique near-pristine ecosystems which should be afforded maximum protection from human influence;

Recommend to their Governments that the following Area of outstanding scientific interest be inserted in Annex B, Specially Protected Areas, of the Agreed Measures for the Conservation of Antarctic Fauna and Flora, together with the annexed Management Plan:

Specially Protected Area No. 23

Forlidas Pond and Davis Valley Ponds, situated near the east end of the Dufek Massif at position 82°27′15″S, 51°21′W. The Area includes smaller ponds that occur along the ice margin at the northern edge of Davis Valley, a short distance east of Forlidas Pond.

ANNEX TO RECOMMENDATION XVI - 9

Specially Protected Area No. 23
Forlidas Pond and Davis Valley Ponds

1. **Geographical location**

Forlidas Pond, about 100 m in diameter, is situated near the east end of the Dufek Massif in a small unnamed dry valley about 1 km east of the northern edge of Forlidas Ridge and about 1 km northwest of Davis Valley. The unnamed dry valley is separated from Davis Valley by a northeast trending ridge several kilometres long. The position of Forlidas Pond is 82°27′15″S, 15°21′W. The Area includes smaller ponds that occur along the ice margin at the northern edge of Davis Valley, a short distance east of Forlidas Pond.

2. **Management Plan**

(i) *Description of Area*

The Area consists of two parts, shown on the attached map, about 500 m apart:

A. All that area within 500 m of the centre of Forlidas Pond;

B. All that area within a 500 m radius of several meltwater ponds at the ice margin along the northern edge of Davis Valley.

(ii) *Reason for designation*

The Area contains some of the most southerly freshwater ponds known in Antarctica containing plant life which would be threatened by possible contamination by human activity. The only visitors to Forlidas Pond

have been geologists and geophysicists in 1957 and possibly one or two other parties. The ponds in Davis Valley were visited in 1978 by geologists. No botanists or zoologists have visited the Area. These ponds are located in SRA NO. 1, North Side of Dufek Massif, which could attract visitors such as scientists or tourists.

They should be protected as examples of unique near-pristine freshwater ecosystems and their catchments.

(iii) *Date of designation and originator*

October, 1991, USA.

(iv) *Access points*

None specified.

(v) *Entry permit requirements*

Entry into the Area is only in strict accordance with a current permit, issued by a Participating Government or its authorised representative, specifically for a compelling scientific purpose which cannot be served elsewhere, or for site inspection, and which will not jeopardise any aspect of the natural ecosystem or its biota within the Area. Details of visits should be included in national annual reports of Exchange of Information for the same Antarctic season in which the activities were carried out.

(vi) *Prohibitions*

None specified, but camping and the landing of helicopters should be avoided within 1 kilometre of the Area.

(vii) *Pedestrian routes*

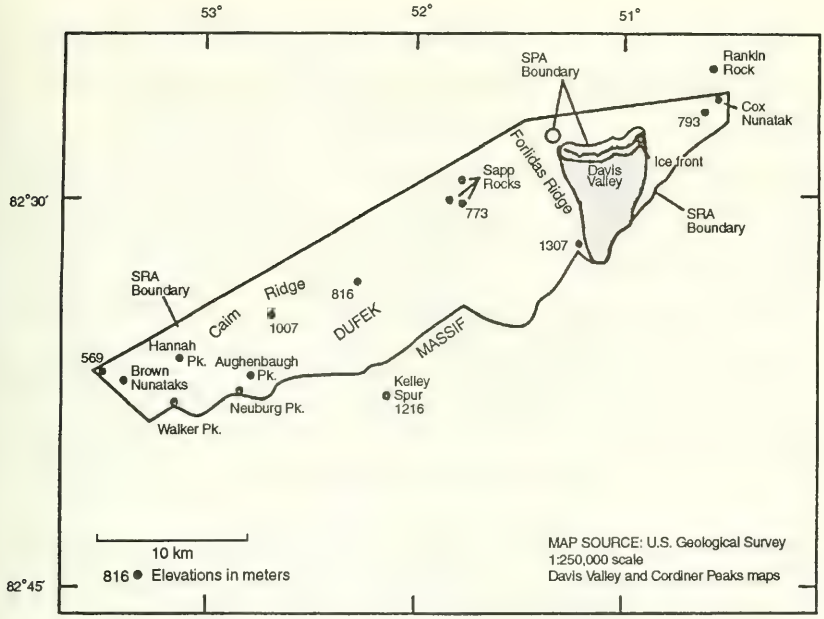
None specified, but every precaution must be taken to avoid disturbance of biota, soil, water, and periglacial features, unless required as specified in the permit.

(viii) *Scientific research and sampling*

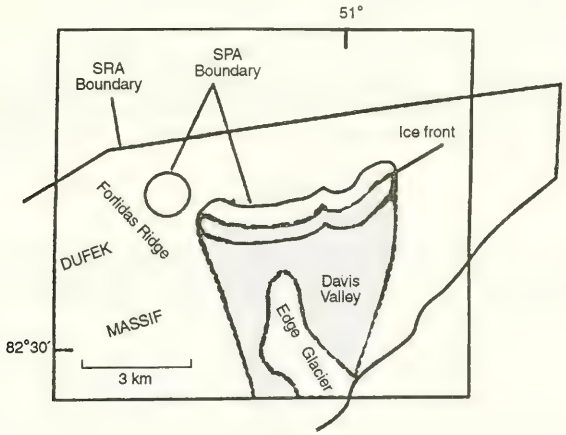
Taking of samples of biota or soils should be done only for a compelling scientific purpose and must conform strictly with the activities specified in the permit to enter the Area.

(ix) *Inspection and maintenance*

Inspection visits should be made when opportunity arises to assess the state of the Area and to monitor biological and environmental change, and to maintain boundary markers, notices, etc.



Specially Protected Area No. 23



MAP SOURCE: U.S. Geological Survey
1:250,000 scale
Davis Valley map

XVI - 10

ANTARCTIC PROTECTED AREA SYSTEM: REVIEW OF THE SYSTEM

The Representatives,

Recalling Article VIII of the Agreed Measures for the Conservation of Antarctic Fauna and Flora and Recommendations V - 4, VI - 14, VII - 2, VII - 9, VIII - 3, XV - 10, XV - 11;

Recalling the Protocol on Environmental Protection to the Antarctic Treaty done at Madrid on 4th October 1991;

Recommend to their Governments that:

(i) The Annex attached to this Recommendation form Annex V on Area Protection and Management to the Protocol on Environmental Protection to the Antarctic Treaty;

(ii) The Annex become effective upon the date on which both the Protocol on Environmental Protection shall have entered into force and this Recommendation shall have been approved by all Consultative Parties entitled to attend the XVIth Antarctic Treaty Consultative Meeting.

ANNEX TO RECOMMENDATION XVI - 10

ANNEX V
TO THE PROTOCOL ON ENVIRONMENTAL PROTECTION TO THE ANTARCTIC TREATY
AREA PROTECTION AND MANAGEMENT

ARTICLE 1
DEFINITIONS

For the purposes of this Annex:

a) "appropriate authority" means any person or agency authorised by a Party to issue permits under this Annex;
b) "permit" means a formal permission in writing issued by an appropriate authority;
c) "Management Plan" means a plan to manage the activities and protect the special value or values in an Antarctic Specially Protected Area or an Antarctic Specially Managed Area.

ARTICLE 2
OBJECTIVES

For the purposes set out in this Annex, any area, including any marine area, may be designated as an Antarctic Specially Protected Area or an Antarctic Specially Managed Area. Activities in those Areas shall be prohibited, restricted or managed in accordance with Management Plans adopted under the provisions of this Annex.

ARTICLE 3
ANTARCTIC SPECIALLY PROTECTED AREAS

1. Any area, including any marine area, may be designated as an Antarctic Specially Protected Area to protect outstanding environmental, scientific, historic, aesthetic or wilderness values, any combination of those values, or ongoing or planned scientific research.

2. Parties shall seek to identify, within a systematic environmental-geographical framework, and to include in the series of Antarctic Specially Protected Areas:

(a) areas kept inviolate from human interference so that future comparisons may be possible with localities that have been affected by human activities;
(b) representative examples of major terrestrial, including glacial and aquatic, ecosystems and marine ecosystems;
(c) areas with important or unusual assemblages of species, including major colonies of breeding native birds or mammals;
(d) the type locality or only known habitat of any species;
(e) areas of particular interest to ongoing or planned scientific research;
(f) examples of outstanding geological, glaciological or geomorphological features;
(g) areas of outstanding aesthetic and wilderness value;
(h) sites or monuments of recognised historic value; and
(i) such other areas as may be appropriate to protect the values set out in paragraph 1 above.

3. Specially Protected Areas and Sites of Special Scientific Interest designated as such by past Antarctic Treaty Consultative Meetings are hereby designated as Antarctic Specially Protected Areas and shall be renamed and renumbered accordingly.

4. Entry into an Antarctic Specially Protected Area shall be prohibited except in accordance with a permit issued under Article 7.

ARTICLE 4
ANTARCTIC SPECIALLY MANAGED AREAS

1. Any area, including any marine area, where activities are being conducted or may in the future be conducted, may be designated as an Antarctic Specially Managed Area to assist in the planning and co-ordination of activities, avoid possible conflicts, improve co-operation between Parties or minimise environmental impacts.

2. Antarctic Specially Managed Areas may include:

(a) areas where activities pose risks of mutual interference or cumulative environmental impacts; and
(b) sites or monuments of recognised historic value.

3. Entry into an Antarctic Specially Managed Area shall not require a permit.

4. Notwithstanding paragraph 3 above, an Antarctic Specially Managed Area may contain one or more Antarctic Specially Protected Areas, entry into which shall be prohibited except in accordance with a permit issued under Article 7.

ARTICLE 5
MANAGEMENT PLANS

1. Any Party, the Committee, the Scientific Committee for Antarctic Research or the Commission for the Conservation of Antarctic Marine Living Resources may propose an area for designation as an Antarctic Specially Protected Area or an Antarctic Specially Managed Area by submitting a proposed Management Plan to the Antarctic Treaty Consultative Meeting.

2. The area proposed for designation shall be of sufficient size to protect the values for which the special protection or management is required.

3. Proposed Management Plans shall include, as appropriate:

(a) a description of the value or values for which special protection or management is required;
(b) a statement of the aims and objectives of the Management Plan for the protection or management of those values;

(c) management activities which are to be undertaken to protect the values for which special protection or management is required;
(d) a period of designation, if any;
(e) a description of the area, including:

(i) the geographical co-ordinates, boundary markers and natural features that delineate the area;

(ii) access to the area by land, sea or air including marine approaches and anchorages, pedestrian and vehicular routes within the area and aircraft routes and landing areas;

(iii) the location of structures, including scientific stations, research or refuge facilities, both within the area and near to it; and

(iv) the location in or near the area of other Antarctic Specially Protected Areas or Antarctic Specially Managed Areas designated under this Annex, or other protected areas designated in accordance with measures adopted under other components of the Antarctic Treaty system;

(f) the identification of zones within the area, in which activities are to be prohibited, restricted or managed for the purpose of achieving the aims and objectives referred to in subparagraph (b) above;
(g) maps and photographs that show clearly the boundary of the area in relation to surrounding features and key features within the area;
(h) supporting documentation;
(i) in respect of an area proposed for designation as an Antarctic Specially Protected Area, a clear description of the conditions under which permits may be granted by the appropriate authority regarding:

(i) access to and movement within or over the area;
(ii) activities which are or may be conducted within the area, including restrictions on time and place;
(iii) the installation, modification, or removal of structures;
(iv) the location of field camps;
(v) restrictions on materials and organisms which may be brought into the area;
(vi) the taking of or harmful interference with native flora and fauna;
(vii) the collection or removal of anything not brought into the area by the permit-holder;
(viii) the disposal of waste;
(ix) measures that may be necessary to ensure that the aims and objectives of the Management Plan can continue to be met; and
(x) requirements for reports to be made to the appropriate authority regarding visits to the area;

(j) in respect of an area proposed for designation as an Antarctic Specially Managed Area, a code of conduct regarding:

(i) access to and movement within or over the area;
(ii) activities which are or may be conducted within the area, including restrictions on time and place;
(iii) the installation, modification, or removal of structures;
(iv) the location of field camps;
(v) the taking of or harmful interference with native flora and fauna;
(vi) the collection or removal of anything not brought into the area by the visitor;
(vii) the disposal of waste; and
(viii) any requirements for reports to be made to the appropriate authority regarding visits to the area; and

(k) provisions relating to the circumstances in which Parties should seek to exchange information in advance of activities which they propose to conduct.

ARTICLE 6
DESIGNATION PROCEDURES

1. Proposed Management Plans shall be forwarded to the Committee, the Scientific Committee on Antarctic Research and, as appropriate, to the Commission for the Conservation of Antarctic Marine Living Resources. In formulating its advice to the Antarctic Treaty Consultative Meeting, the Committee shall take into account any comments provided by the Scientific Committee on Antarctic Research and, as appropriate, by the Commission for the Conservation of Antarctic Marine Living Resources. Thereafter Management Plans may be approved by the Antarctic Treaty Consultative Parties by a measure adopted at an Antarctic Treaty Consultative Meeting in accordance with Article IX(1) of the Antarctic Treaty. Unless the measure specifies otherwise, the Plan shall be deemed to have been approved 90 days after the close of the Antarctic Treaty Consultative Meeting at which it was adopted, unless one or more of the Consultative Parties notifies the Depositary, within that time period, that it wishes an extension of that period or is unable to approve the measure.

2. Having regard to the provisions of Articles 4 and 5 of the Protocol, no marine area shall be designated as an Antarctic Specially Protected Area or an Antarctic Specially Managed Area without the prior approval of the Commission for the Conservation of Antarctic Marine Living Resources.

3. Designation of an Antarctic Specially Protected Area or an Antarctic Specially Managed Area shall be for an indefinite period unless the Management Plan provides otherwise. A review of a Management Plan shall be initiated at least every five years. The Plan shall be updated as necessary.

4. Management Plans may be amended or revoked in accordance with paragraph 1 above.

5. Upon approval Management Plans shall be circulated promptly by the Depositary to all Parties. The Depositary shall maintain a record of all currently approved Management Plans.

ARTICLE 7
PERMITS

1. Each Party shall appoint an appropriate authority to issue permits to enter and engage in activities within an Antarctic Specially Protected Area in accordance with the requirements of the Management Plan relating to that Area. The permit shall be accompanied by the relevant sections of the Management Plan and shall specify the extent and location of the Area, the authorised activities and when, where and by whom the activities are authorised and any other conditions imposed by the Management Plan.

2. In the case of a Specially Protected Area designated as such by past Antarctic Treaty Consultative Meetings which does not have a Management Plan, the appropriate authority may issue a permit for a compelling scientific purpose which cannot be served elsewhere and which will not jeopardise the natural ecological system in that Area.

3. Each Party shall require a permit-holder to carry a copy of the permit while in the Antarctic Specially Protected Area concerned.

ARTICLE 8
HISTORIC SITES AND MONUMENTS

1. Sites or monuments of recognised historic value which have been designated as Antarctic Specially Protected Areas or Antarctic Specially Managed Areas, or which are located within such Areas, shall be listed as Historic Sites and Monuments.

2. Any Party may propose a site or monument of recognised historic value which has not been designated as an Antarctic Specially Protected Area or an Antarctic Specially Managed Area, or which is not located within such an Area, for listing as a Historic Site or Monument. The proposal for listing may be approved by the Antarctic Treaty Consultative Parties by a measure adopted at an Antarctic Treaty Consultative Meeting in

accordance with Article IX (1) of the Antarctic Treaty. Unless the measure specifies otherwise, the proposal shall be deemed to have been approved 90 days after the close of the Antarctic Treaty Consultative Meeting at which it was adopted, unless one or more of the Consultative Parties notifies the Depositary, within that time period, that it wishes an extension of that period or is unable to approve the measure.

3. Existing Historic Sites and Monuments which have been listed as such by previous Antarctic Treaty Consultative Meetings shall be included in the list of Historic Sites and Monuments under this Article.

4. Listed Historic Sites and Monuments shall not be damaged, removed or destroyed.

5. The list of Historic Sites and Monuments may be amended in accordance with paragraph 2 above. The Depositary shall maintain a list of current Historic Sites and Monuments.

ARTICLE 9
INFORMATION AND PUBLICITY

1. With a view to ensuring that all persons visiting or proposing to visit Antarctica understand and observe the provisions of this Annex, each Party shall make available information setting forth, in particular:

   (a) the location of Antarctic Specially Protected Areas and Antarctic Specially Managed Areas;
   (b) listing and maps of those Areas;
   (c) the Management Plans, including listings of prohibitions relevant to each Area;
   (d) the location of Historic Sites and Monuments and any relevant prohibition or restriction.

2. Each Party shall ensure that the location and, if possible, the limits, of Antarctic Specially Protected Areas, Antarctic Specially Managed Areas and Historic Sites and Monuments are shown on its topographic maps, hydrographic charts and in other relevant publications.

3. Parties shall co-operate to ensure that, where appropriate, the boundaries of Antarctic Specially Protected Areas, Antarctic Specially Managed Areas and Historic Sites and Monuments are suitably marked on the site.

ARTICLE 10
EXCHANGE OF INFORMATION

1. The Parties shall make arrangements for:

   (a) collecting and exchanging records, including records of permits and reports of visits, including inspection visits, to Antarctic Specially Protected Areas and reports of inspection visits to Antarctic Specially Managed Areas;
   (b) obtaining and exchanging information on any significant change or damage to any Antarctic Specially Managed Area, Antarctic Specially Protected Area or Historic Site or Monument; and
   (c) establishing common forms in which records and information shall be submitted by Parties in accordance with paragraph 2 below.

2. Each Party shall inform the other Parties and the Committee before the end of November of each year of the number and nature of permits issued under this Annex in the preceding period of 1st July to 30th June.

3. Each Party conducting, funding or authorising research or other activities in Antarctic Specially Protected Areas or Antarctic Specially Managed Areas shall maintain a record of such activities and in the annual exchange of information in accordance with the Treaty shall provide summary descriptions of the activities conducted by persons subject to its jurisdiction in such areas in the preceding year.

4. Each Party shall inform the other Parties and the Committee before the end of November each year of measures it has taken to implement this Annex, including any site inspections and any steps it has taken to address instances of activities in contravention of the provisions of the approved Management Plan for an Antarctic Specially Protected Area or Antarctic Specially Managed Area.

ARTICLE 11
CASES OF EMERGENCY

1. The restrictions laid down and authorised by this Annex shall not apply in cases of emergency involving safety of human life or of ships, aircraft, or equipment and facilities of high value or the protection of the environment.

2. Notice of activities undertaken in cases of emergency shall be circulated immediately to all Parties and to the Committee.

ARTICLE 12
AMENDMENT OR MODIFICATION

1. This Annex may be amended or modified by a measure adopted in accordance with Article IX(1) of the Antarctic Treaty. Unless the measure specifies otherwise, the amendment or modification shall be deemed to have been approved, and shall become effective, one year after the close of the Antarctic Treaty Consultative Meeting at which it was adopted, unless one or more of the Antarctic Treaty Consultative Parties notifies the Depositary, within that time period, that it wishes an extension of that period or that it is unable to approve the measure.

2. Any amendment or modification of this Annex which becomes effective in accordance with paragraph 1 above shall thereafter become effective as to any other Party when notice of approval by it has been received by the Depositary.

XVI - 11

ANTARCTIC PROTECTED AREA SYSTEM

New Historic Sites and Monuments

The Representatives,

Recalling Recommendation I-IX, V-4, VI-14, VII-9, XII-7, XIII-16 and XIV-8;

Recommend to their Governments that the following historic sites (monuments) be added to the "List of Historic Monuments Identified and Described by the Proposing Government or Governments" annexed to Recommendation VII-9 and that thereafter they be accorded the respect and protection required by the Recommendations recalled above:

56. Waterboat Point, Danco Coast, Antarctic Peninsula (64°49′S, 62°52′W). The remains and immediate environs of the Waterboat Point hut, situated close to the unoccupied Chilean station, 'Presidente Gabriel González Videla'. The Waterboat Point hut, of which only the base of the boat, roots of door posts and an outline of the hut and extension still exist, was occupied by the UK two-man expedition of Bagshawe and Lester in 1921-22. This was, and indeed remains, the smallest expedition ever to overwinter in Antarctica.

57. Commemorative plaque at Yankee Bay, MacFarlane Strait, Greenwich Island, South Shetland Islands, near the Chilean refuge located at latitude 62°32′S and longitude 59°45′W, to the memory of Captain Robert MacFarlane, who in 1820 explored the Antarctic Peninsula Area in the brigantine Dragón.

58. Cairn with memorial plaque erected at Whalers' Bay, Deception Island, South Shetland Islands, in the vicinity of the whalers' cemetery (Historic Monument No. 31) 62°59′S, 60°34′W, to honour captain Adolfus Amandus Andresen, Antarctic pioneer, who was first to establish a whaling operation at Deception Island in 1906.

59. A cairn on Half Moon Beach, Cape Shirreff, Livingston Island, South Shetland Islands, commemorating the officers, soldiers and seamen on board the San Telmo, which sank in September 1819; possibly the first people to live and die in the wastes of Antarctica.

XVI - 12

ACCESSIBILITY OF ANTARCTIC GEOPHYSICAL DATA

The Representatives,

Recalling that Article 3 of the Antarctic Treaty requires that scientific data be exchanged and made freely available;

Noting that Article 7 of the Protocol on Environmental Protection to the Antarctic Treaty signed in Madrid on 4 October, 1991 prohibits any activity relating to mineral resources other than scientific research;

Aware that solid earth science disciplines have made major contributions to the understanding of our planet, and that such work has long been recognised as having global significance as applied inter alia to studies of plate tectonics and Antarctic glacial history including its effects on world climate;

Reiterating the importance of pursuing geological and geophysical research and their commitment to the disclosure, availability and timely publication of scientific results;

Recommend to their governments that the Seismic Data Library System (SDLS) approved by the SCAR Executive in 1991 and described in the report "A SCAR Seismic Data Library System for Co-operative Research" of the SCAR Group of Specialists on the Evolution of Cenozoic Paleoenvironments of the Southern High Latitudes (GSC) Antarctic Offshore Acoustic Stratigraphy Project (ANTOSTRAT) be implemented. The SDLS requires inter alia that digital data from multichannel seismic reflection surveys be sent to the SDLS within four years of collection and eight years after collection to the World Data Centres or other archives for general dissemination.

XVI - 13

TOURISM AND NON-GOVERNMENTAL ACTIVITIES IN THE ANTARCTIC TREATY AREA

The Representatives,

Bearing in mind that the XVth Consultative Meeting agreed that a comprehensive review of tourism and non-governmental activities was required;

Noting that the Protocol on Environmental Protection to the Antarctic Treaty and its Annexes apply to tourist and non-governmental activities in Antarctica;

Recalling that the XIth Special Consultative Meeting asked the XVIth Consultative Meeting to address the issue of tourism and non-governmental activities;

Acknowledging that the Protocol constitutes the framework for further progress in Antarctic environmental protection;

Concerned about the possible effect of increased tourism and non-governmental activities in Antarctica;

Conscious of the need to ensure that the presence of tourists and other visitors in Antarctica be regulated so as to limit adverse impacts on the Antarctic environment and on Antarctic Science:

Recommend to their Governments that:

(i) An informal meeting of the Parties be convened with a view to making proposals to the XVIIth Consultative Meeting on the question of a comprehensive regulation of tourist and non-governmental activities in Antarctica in accordance with the Protocol and taking into account the proposals made at the present XVIth Consultative Meeting, including proposals for a future Annex to the Protocol on Environmental Protection;

(ii) Prior to the convening of that meeting and in order to ensure due preparation of its work, proposals should be prepared by them taking into account the list of issues stated below, which the meeting should, inter alia, primarily address:

a) environmental issues
- implementation of the Protocol on Environmental Protection and its Annexes
- number of tourists/carrying capacity
- homologation of standards relating to vessels
- permanent infrastructure for tourists
- concentration/dispersal of tourist activities
- access to unexplored areas;

b) operational issues
- notification and expansion of information to be exchanged
- system for granting permission to visit stations
- self-sufficiency
- insurance, including search and rescue insurance
- information obligation of Parties
- preparation and training of tour guides, and visitors' guides
- examination of the need for specific kinds of control and monitoring
- requirements for organisational procedures;

(iii) The meeting shall begin its work in Venice on 9 November 1992;

(iv) Representatives of the WTO, IUCN, IAATO, IMO, ASOC, PATA, SCAR and COMNAP be invited to attend the Meeting as observers.

Protocol on Environmental Protection to the Antarctic Treaty, Madrid and Bonn, 1991

Done at Madrid 4 October 1991; Annex V done at Bonn 17 October 1991

Not in force

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PROTOCOL ON ENVIRONMENTAL PROTECTION TO THE ANTARCTIC TREATY

PREAMBLE

The States Parties to this Protocol to the Antarctic Treaty, hereinafter referred to as the Parties,

Convinced of the need to enhance the Protection of the Antarctic environment and dependent and associated ecosystems;

Convinced of the need to strengthen the Antarctic Treaty system so as to ensure that Antarctica shall continue forever to be used exclusively for peaceful purposes and shall not become the scene or object of international discord;

Bearing in mind the special legal and political status of Antarctica and the special responsibility of the Antarctic Treaty Consultative Parties to ensure that all activities in Antarctica are consistent with the purposes and principles of the Antarctic Treaty;

Recalling the designation of Antarctica as a Special Conservation Area and other measures adopted under the Antarctic Treaty system to protect the Antarctic environment and dependent and associated ecosystems;

Acknowledging further the unique opportunities Antarctica offers for scientific monitoring of and research on processes of global as well as regional importance;

Reaffirming the conservation principles of the Convention on the Conservation of Antarctic Marine Living Resources;

Convinced that the development of a comprehensive regime for the protection of the Antarctic environment and dependent and associated ecosystems is in the interest of mankind as a whole;

Desiring to supplement the Antarctic Treaty to this end;

Have agreed as follows:

ARTICLE 1

DEFINITIONS

For the purposes of this protocol:

(a) "The Antarctic Treaty" means the Antarctic Treaty done at Washington on 1 December 1959;

(b) "Antarctic Treaty area" means the area to which the provisions of the Antarctic Treaty apply in accordance with Article VI of that Treaty;

(c) "Antarctic Treaty Consultative Meetings" means the meetings referred to in Article IX of the Antarctic Treaty;

(d) "Antarctic Treaty Consultative Parties" means the Contracting Parties to the Antarctic Treaty entitled to appoint representatives to participate in the meetings referred to in Article IX of that Treaty;

(e) "Antarctic Treaty system" means the Antarctic Treaty, the measures in effect under that Treaty, its associated separate international instruments in force and the measures in effect under those instruments;

(f) "Arbitral Tribunal" means the Arbitral Tribunal established in accordance with the Schedule to this Protocol, which forms an integral part thereof;

(g) "Committee" means the Committee for Environmental Protection established in accordance with Article 11.

ARTICLE 2

OBJECTIVE AND DESIGNATION

The Parties commit themselves to the comprehensive protection of the Antarctic environment and dependent and associated ecosystems and hereby designate Antarctica as a natural reserve, devoted to peace and science.

ARTICLE 3

ENVIRONMENTAL PRINCIPLES

1. The protection of the Antarctic environment and dependent and associated ecosystems and the intrinsic value of Antarctica, including its wilderness and aesthetic values and its value as an area for the conduct of scientific research, in particular research essential to understanding the global environment, shall be fundamental considerations in the planning and conduct of all activities in the Antarctic Treaty area.

2. To this end:

(a) activities in the Antarctic Treaty area shall be planned and conducted so as to limit adverse impacts on the Antarctic environment and dependent and associated ecosystems;

(b) activities in the Antarctic Treaty area shall be planned and conducted so as to avoid:

(i) adverse effects on climate or weather patterns;

(ii) significant adverse effects on air or water quality;

(iii) significant changes in the atmospheric, terrestrial (including aquatic), glacial or marine environments;

(iv) detrimental changes in the distribution, abundance or productivity of species or populations of species of fauna and flora;

(v) further jeopardy to endangered or threatened species or populations of such species; or

(vi) degradation of, or substantial risk to, areas of biological, scientific, historic, aesthetic or wilderness significance;

(c) activities in the Antarctic Treaty area shall be planned and conducted on the basis of information sufficient to allow prior assessments of, and informed judgments about, their possible impacts on the Antarctic environment and dependent and associated ecosystems and on the value of Antarctica for the conduct of scientific research; such judgments shall take full account of:

(i) the scope of the activity, including its area, duration and intensity;

(ii) the cumulative impacts of the activity, both by itself and in combination with other activities in the Antarctic Treaty area;

(iii) whether the activity will detrimentally affect any other activity in the Antarctic Treaty area;

(iv) whether technology and procedures are available to provide for environmentally safe operations;

(v) whether there exists the capacity to monitor key environmental parameters and ecosystem components so as to identify and provide early warning of any adverse effects of the activity and to provide for such modification of operating procedures as may be necessary in the light of the results of monitoring or increased knowledge of the Antarctic environment and dependent and associated ecosystems; and

(vi) whether there exists the capacity to respond promptly and effectively to accidents, particularly those with potential environmental effects;

(d) regular and effective monitoring shall take place to allow assessment of the impacts of ongoing activities, including the verification of predicted impacts;

(e) regular and effective monitoring shall take place to facilitate early detection of the possible unforeseen effects of activities carried on both within and outside the Antarctic Treaty area on the Antarctic environment and dependent and associated ecosystems.

3. Activities shall be planned and conducted in the Antarctic Treaty area so as to accord priority to scientific research and to preserve the value of Antarctica as an area for the conduct of such research, including research essential to understanding the global environment.

4. Activities undertaken in the Antarctic Treaty area pursuant to scientific research programmes, tourism and all other governmental and non-governmental activities in the Antarctic Treaty area for which advance notice is required in accordance with Article VII (5) of the Antarctic Treaty, including associated logistic support activities, shall:

(a) take place in a manner consistent with the principles in this Article; and

(b) be modified, suspended or cancelled if they result in or threaten to result in impacts upon the Antarctic environment or dependent or associated ecosystems inconsistent with those principles.

ARTICLE 4

RELATIONSHIP WITH THE OTHER COMPONENTS OF THE ANTARCTIC TREATY SYSTEM

1. This protocol shall supplement the Antarctic Treaty and shall neither modify nor amend that Treaty.

2. Nothing in this Protocol shall derogate from the rights and obligations of the parties to this protocol under the other international instruments in force within the Antarctic Treaty system.

ARTICLE 5

CONSISTENCY WITH THE OTHER COMPONENTS OF THE ANTARCTIC TREATY SYSTEM

The Parties shall consult and co-operate with the Contracting Parties to the other international instruments in force within the Antarctic Treaty system and their respective institutions with a view to ensuring the achievement of the objectives and principles of this Protocol and avoiding any interference with the achievement of the objectives and principles of those instruments or any inconsistency between the implementation of those instruments and of this Protocol.

ARTICLE 6

CO-OPERATION

1. The Parties shall co-operate in the planning and conduct of activities in the Antarctic Treaty area. To this end, each Party shall endeavour to:

(a) promote co-operative programmes of scientific, technical and educational value, concerning the protection of the Antarctic environment and dependent and associated ecosystems;

(b) provide appropriate assistance to other parties in the preparation of environmental impact assessments;

(c) provide to other Parties upon request information relevant to any potential environmental risk and assistance to minimize the effects of accidents which may damage the Antarctic environment or dependent and associated ecosystems;

(d) consult with other parties with regard to the choice of sites for prospective stations and other facilities so as to avoid the cumulative impacts caused by their excessive concentration in any location;

(e) where appropriate, undertake joint expeditions and share the use of stations and other facilities; and

(f) carry out such steps as may be agreed upon at Antarctic Treaty Consultative Meetings.

2. Each Party undertakes, to the extent possible, to share information that may be helpful to other Parties in planning and conducting their activities in the Antarctic Treaty area, with a view to the protection of the Antarctic environment and dependent and associated ecosystems.

3. The Parties shall co-operate with those Parties which may exercise jurisdiction in areas adjacent to the Antarctic Treaty area with a view to ensuring that activities in the Antarctic Treaty area do not have adverse environmental impacts on those areas.

ARTICLE 7

PROHIBITION OF MINERAL RESOURCE ACTIVITIES

Any activity relating to mineral resources, other than scientific research, shall be prohibited.

ARTICLE 8

ENVIRONMENTAL IMPACT ASSESSMENT

1. Proposed activities referred to in paragraph 2 below shall be subject to the procedures set out in Annex I for prior assessment of the impacts of those activities on the Antarctic environment or on dependent or associated ecosystems according to whether those activities are identified as having:

(a) less than a minor or transitory impact;

(b) a minor or transitory impact; or

(c) more than a minor or transitory impact.

2. Each Party shall ensure that the assessment procedures set out in Annex I are applied in the planning processes leading to decisions about any activities undertaken in the Antarctic Treaty area pursuant to scientific research programmes, tourism and all other governmental and non-governmental activities in the Antarctic Treaty area for which advance notice is required under Article VII (5) of the Antarctic Treaty, including associated logistic support activities.

3. The assessment procedures set out in Annex I shall apply to any change in an activity whether the change arises from an increase or decrease in the intensity of an existing activity, from the addition of an activity, the decommissioning of a facility, or otherwise.

4. Where activities are planned jointly by more than one Party, the Parties involved shall nominate one of their number to coordinate the implementation of the environmental impact assessment procedures set out in Annex I.

ARTICLE 9

ANNEXES

1. The Annexes to this Protocol shall form an integral part thereof.

2. Annexes, additional to Annexes I-IV, may be adopted and become effective in accordance with Article IX of the Antarctic Treaty.

3. Amendments and modifications to Annexes may be adopted and become effective in accordance with Article IX of the Antarctic Treaty, provided that any Annex may itself make provision for amendments and modifications to become effective on an accelerated basis.

4. Annexes and any amendments and modifications thereto which have become effective in accordance with paragraphs 2 and 3 above shall, unless an Annex itself provides otherwise in respect of the entry into effect of any amendment or modification thereto, become effective for a Contracting Party to the Antarctic Treaty which is not an Antarctic Treaty Consultative Party, or which was not an Antarctic Treaty Consultative Party at the time of the adoption, when notice of approval of that Contracting Party has been received by the Depositary.

5. Annexes shall, except to the extent that an Annex provides otherwise, be subject to the procedures for dispute settlement set out in Articles 18 to 20.

ARTICLE 10

ANTARCTIC TREATY CONSULTATIVE MEETINGS

1. Antarctic Treaty Consultative Meetings shall, drawing upon the best scientific and technical advice available:

   (a) define, in accordance with the provisions of this Protocol, the general policy for the comprehensive protection of the Antarctic environment and dependent and associated ecosystems; and

   (b) adopt measures under Article IX of the Antarctic Treaty for the implementation of this Protocol.

2. Antarctic Treaty Consultative Meetings shall review the work of the Committee and shall draw fully upon its advice and recommendations in carrying out the tasks referred to in paragraph 1 above, as well as upon the advice of the Scientific Committee on Antarctic Research.

ARTICLE 11

COMMITTEE FOR ENVIRONMENTAL PROTECTION

1. There is hereby established the Committee for Environmental protection.

2. Each Party shall be entitled to be a member of the Committee and to appoint a representative who may be accompanied by experts and advisers.

3. Observer status in the Committee shall be open to any Contracting Party to the Antarctic Treaty which is not a Party to this Protocol.

4. The Committee shall invite the President of the Scientific Committee on Antarctic Research and the Chairman of the Scientific Committee for the Conservation of Antarctic Marine Living Resources to participate as observers at its sessions. The Committee may also, with the approval of the Antarctic Treaty Consultative Meeting, invite such other relevant scientific, environmental and technical organisations which can contribute to its work to participate as observers at its sessions.

5. The Committee shall present a report on each of its sessions to the Antarctic Treaty Consultative Meeting. The report shall cover all matters considered at the session and shall reflect the views expressed. The report shall be circulated to the Parties and to observers attending the session, and shall thereupon be made publicly available.

6. The Committee shall adopt its rules of procedure which shall be subject to approval by the Antarctic Treaty Consultative Meeting.

ARTICLE 12

FUNCTIONS OF THE COMMITTEE

1. The functions of the Committee shall be to provide advice and formulate recommendations to the Parties in connection with the implementation of this Protocol, including the operation of its Annexes, for consideration at Antarctic Treaty Consultative Meetings, and to perform such other functions as may be referred to it by the Antarctic Treaty Consultative Meetings. In particular, it shall provide advice on:

   (a) the effectiveness of measures taken pursuant to this Protocol;

   (b) the need to update, strengthen or otherwise improve such measures;

   (c) the need for additional measures, including the need for additional Annexes, where appropriate;

(d) the application and implementation of the environmental impact assessment procedures set out in Article 8 and Annex I;

(e) means of minimizing or mitigating environmental impacts of activities in the Antarctic Treaty area;

(f) procedures for situations requiring urgent action, including response action in environmental emergencies;

(g) the operation and further elaboration of the Antarctic Protected Area system;

(h) inspection procedures, including formats for inspection reports and checklists for the conduct of inspection;

(i) the collection, archiving, exchange and evaluation of information related to environmental protection;

(j) the state of the Antarctic environment; and

(k) the need for scientific research, including environmental monitoring, related to the implementation of this Protocol.

2. In carrying out its functions, the Committee shall, as appropriate, consult with the Scientific Committee on Antarctic Research, the Scientific Committee for the Conservation of Antarctic Marine Living Resources and other relevant scientific, environmental and technical organizations.

ARTICLE 13

COMPLIANCE WITH THIS PROTOCOL

1. Each Party shall take appropriate measures within its competence, including the adoption of laws and regulations, administrative actions and enforcement measures, to ensure compliance with this Protocol.

2. Each Party shall exert appropriate efforts, consistent with the Charter of the United Nations, to the end that no one engages in any activity contrary to this Protocol.

3. Each Party shall notify all other Parties of the measures it takes pursuant to paragraphs 1 and 2 above.

4. Each party shall draw the attention of all other Parties to any activity which in its opinion affects the implementation of the objectives and principles of this Protocol.

5. The Antarctic Treaty Consultative Meetings shall draw the attention of any State which is not a Party to this Protocol to any activity undertaken by that State, its agencies, instrumentalities, natural or juridical persons, ships, aircraft or other means of transport which affects the implementation of the objectives and principles of this Protocol.

ARTICLE 14

INSPECTION

1. In order to promote the protection of the Antarctic environment and dependent and associated ecosystems, and to ensure compliance with this Protocol, the Antarctic Treaty Consultative Parties shall arrange, individually or collectively, for inspections by observers to be made in accordance with Article VII of the Antarctic Treaty.

2. Observers are:

(a) observers designated by any Antarctic Treaty Consultative Party who shall be nationals of that Party; and

(b) any observers designated at Antarctic Treaty Consultative Meetings to carry out inspections under procedures to be established by an Antarctic Treaty Consultative Meeting.

3. Parties shall co-operate fully with observers undertaking inspections, and shall ensure that during inspections, observers are given access to all parts of stations, installations, equipment, ships and aircraft open to inspection under Article VII (3) of the Antarctic Treaty, as well as to all records maintained thereon which are called for pursuant to this Protocol.

4. Reports of inspections shall be sent to the Parties whose stations, installations, equipment, ships or aircraft are covered by the reports. After those Parties have been given the opportunity to comment, the reports and any comments thereon shall be circulated to all the Parties and to the Committee, considered at the next Antarctic Treaty Consultative Meeting, and thereafter made publicly available.

ARTICLE 15

EMERGENCY RESPONSE ACTION

1. In order to respond to environmental emergencies in the Antarctic Treaty area, each Party agrees to:

(a) provide for prompt and effective response action to such emergencies which might arise in the performance of scientific research programmes, tourism and all other governmental and non-governmental activities in the Antarctic Treaty area for which advance notice is required under Article VII (5) of the Antarctic Treaty, including associated logistic support activities; and

(b) establish contingency plans for response to incidents with potential adverse effects on the Antarctic environment or dependent and associated ecosystems.

2. To this end, the Parties shall:

(a) co-operate in the formulation and implementation of such contingency plans; and

(b) establish procedures for immediate notification of, and co-operative response to, environmental emergencies.

3. In the implementation of this Article, the Parties shall draw upon the advice of the appropriate international organisations.

ARTICLE 16

LIABILITY

Consistent with the objectives of this Protocol for the comprehensive protection of the Antarctic environment and dependent and associated ecosystems, the Parties undertake to elaborate rules and procedures relating to liability for damage arising from activities taking place in the Antarctic Treaty area and covered by this Protocol. Those rules and procedures shall be included in one or more Annexes to be adopted in accordance with Article 9 (2).

ARTICLE 17

ANNUAL REPORT BY PARTIES

1. Each Party shall report annually on the steps taken to implement this Protocol. Such reports shall include notifications made in accordance with Article 13 (3), contingency plans established in accordance with Article 15 and

any other notifications and information called for pursuant to this Protocol for which there is no other provision concerning the circulation and exchange of information.

2. Reports made in accordance with paragraph 1 above shall be circulated to all Parties and to the Committee, considered at the next Antarctic Treaty Consultative Meeting, and made publicly available.

ARTICLE 18

DISPUTE SETTLEMENT

If a dispute arises concerning the interpretation or application of this Protocol, the Parties to the dispute shall, at the request of any one of them, consult among themselves as soon as possible with a view to having the dispute resolved by negotiation, inquiry, mediation, conciliation, arbitration, judicial settlement or other peaceful means to which the parties to the dispute agree.

ARTICLE 19

CHOICE OF DISPUTE SETTLEMENT PROCEDURE

1. Each Party, when signing, ratifying, accepting, approving or acceding to this Protocol, or at any time thereafter, may choose, by written declaration, one or both of the following means for the settlement of disputes concerning the interpretation or application of Articles 7, 8 and 15 and, except to the extent that an Annex provides otherwise, the provisions of any Annex and, insofar as it relates to these Articles and provisions, Article 13:

(a) the International Court of Justice;

(b) the Arbitral Tribunal.

2. A declaration made under paragraph 1 above shall not affect the operation of Article 18 and Article 20 (2).

3. A Party which has not made a declaration under paragraph 1 above or in respect of which a declaration is no longer in force shall be deemed to have accepted the competence of the Arbitral Tribunal.

4. If the parties to a dispute have accepted the same means for the settlement of a dispute, the dispute may be submitted only to that procedure, unless the parties otherwise agree.

5. If the parties to a dispute have not accepted the same means for the settlement of a dispute, or if they have both accepted both means, the dispute may be submitted only to the Arbitral Tribunal, unless the parties otherwise agree.

6. A declaration made under paragraph 1 above shall remain in force until it expires in accordance with its terms or until three months after written notice of revocation has been deposited with the Depositary.

7. A new declaration, a notice of revocation or the expiry of a declaration shall not in any way affect proceedings pending before the International Court of Justice or the Arbitral Tribunal, unless the parties to the dispute otherwise agree.

8. Declarations and notices referred to in this Article shall be deposited with the Depositary who shall transmit copies thereof to all Parties.

ARTICLE 20

DISPUTE SETTLEMENT PROCEDURE

1. If the parties to a dispute concerning the interpretation or application of Articles 7, 8 or 15 or, except to the extent that an Annex provides otherwise, the provisions of any Annex or, insofar as it relates to these Articles and provisions, Article 13, have not agreed on a means for resolving it within 12 months of the request for consultation pursuant to Article 18, the dispute shall be referred, at the request of any party to the dispute, for settlement in accordance with the procedure determined by Article 19 (4) and (5).

2. The Arbitral Tribunal shall not be competent to decide or rule upon any matter within the scope of Article IV of the Antarctic Treaty. In addition, nothing in this Protocol shall be interpreted as conferring competence or jurisdiction on the International Court of Justice or any other tribunal established for the purpose of settling disputes between Parties to decide or otherwise rule upon any matter within the scope of Article IV of the Antarctic Treaty.

ARTICLE 21

SIGNATURE

This Protocol shall be open for signature at Madrid on the 4th of October 1991 and thereafter at Washington until the 3rd of October 1992 by any State which is a Contracting Party to the Antarctic Treaty.

ARTICLE 22

RATIFICATION, ACCEPTANCE, APPROVAL OR ACCESSION

1. This Protocol is subject to ratification, acceptance or approval by signatory States.

2. After the 3rd of October 1992 this Protocol shall be open for accession by any State which is a Contracting Party to the Antarctic Treaty.

3. Instruments of ratification, acceptance, approval or accession shall be deposited with the Government of the United States of America, hereby designated as the Depositary.

4. After the date on which this Protocol has entered into force, the Antarctic Treaty Consultative Parties shall not act upon a notification regarding the entitlement of a Contracting Party to the Antarctic Treaty to appoint representatives to participate in Antarctic Treaty Consultative Meetings in accordance with Article IX (2) of the Antarctic Treaty unless that Contracting Party has first ratified, accepted, approved or acceded to this Protocol.

ARTICLE 23

ENTRY INTO FORCE

1. This Protocol shall enter into force on the thirtieth day following the date of deposit of instruments of ratification, acceptance, approval or accession by all States which are Antarctic Treaty Consultative Parties at the date on which this Protocol is adopted.

2. For each Contracting party to the Antarctic Treaty which, subsequent to the date of entry into force of this Protocol, deposits an instrument of ratification, acceptance, approval or accession, this Protocol shall enter into force on the thirtieth day following such deposit.

ARTICLE 24

RESERVATIONS

Reservations to this Protocol shall not be permitted.

ARTICLE 25

MODIFICATION OR AMENDMENT

1. Without prejudice to the provisions of Article 9, this Protocol may be modified or amended at any time in accordance with the procedures set forth in Article XII (1) (a) and (b) of the Antarctic Treaty.

2. If, after the expiration of 50 years from the date of entry into force of this Protocol, any of the Antarctic Treaty Consultative Parties so requests by a communication addressed to the Depositary, a conference shall be held as soon as practicable to review the operation of this Protocol.

3. A modification or amendment proposed at any Review Conference called pursuant to paragraph 2 above shall be adopted by a majority of the Parties, including 3/4 of the States which are Antarctic Treaty Consultative Parties at the time of adoption of this Protocol.

4. A modification or amendment adopted pursuant to paragraph 3 above shall enter into force upon ratification, acceptance, approval or accession by 3/4 of the Antarctic Treaty Consultative Parties, including ratification, acceptance, approval or accession by all States which are Antarctic Treaty Consultative Parties at the time of adoption of this Protocol.

5. (a) With respect to Article 7, the prohibition on Antarctic mineral resource activities contained therein shall continue unless there is in force a binding legal regime on Antarctic mineral resource activities that includes an agreed means for determining whether, and, if so, under which conditions, any such activities would be acceptable. This regime shall fully safeguard the interests of all States referred to in Article IV of the Antarctic Treaty and apply the principles thereof. Therefore, if a modification or amendment to Article 7 is proposed at a Review Conference referred to in paragraph 2 above, it shall include such a binding legal regime.

(b) If any such modification or amendment has not entered into force within 3 years of the date of its adoption, any Party may at any time thereafter notify to the Depositary of its withdrawal from this Protocol, and such withdrawal shall take effect 2 years after receipt of the notification by the Depositary.

ARTICLE 26

NOTIFICATIONS BY THE DEPOSITARY

The Depositary shall notify all Contracting Parties to the Antarctic Treaty of the following:

(a) signatures of this Protocol and the deposit of instruments of ratification, acceptance, approval or accession;

(b) the date of entry into force of this Protocol and any additional Annex thereto;

(c) the data of entry into force of any amendment or modification to this Protocol;

(d) the deposit of declarations and notices pursuant to Article 19; and

(e) any notification received pursuant to Article 25 (5) (b).

ARTICLE 27

AUTHENTIC TEXTS AND REGISTRATION WITH THE UNITED NATIONS

1. This Protocol, done in the English, French, Russian and Spanish languages, each version being equally authentic, shall be deposited in the archives of the Government of the United States of America, which shall transmit duly certified copies thereof to all Contracting Parties to the Antarctic Treaty.

2. This Protocol shall be registered by the Depositary pursuant to Article 102 of the Charter of the United Nations.

SCHEDULE TO THE PROTOCOL

ARBITRATION

Article 1

1. The Arbitral Tribunal shall be constituted and shall function in accordance with the Protocol, including this Schedule.

2. The Secretary referred to in this Schedule is the Secretary General of the Permanent Court of Arbitration.

Article 2

1. Each Party shall be entitled to designate up to three Arbitrators, at least one of whom shall be designated within three months of the entry into force of the Protocol for that Party. Each Arbitrator shall be experienced in Antarctic affairs, have thorough knowledge of international law and enjoy the highest reputation for fairness, competence and integrity. The names of the persons so designated shall constitute the list of Arbitrators. Each Party shall at all times maintain the name of at least one Arbitrator on the list.

2. Subject to paragraph 3 below, an Arbitrator designated by a Party shall remain on the list for a period of five years and shall be eligible for redesignation by that Party for additional five year periods.

3. A Party which designated an Arbitrator may withdraw the name of that Arbitrator from the list. If an Arbitrator dies or if a Party for any reason withdraws from the list the name of an Arbitrator designated by it, the Party which designated the Arbitrator in question shall notify the Secretary promptly. An Arbitrator whose name is withdrawn from the list shall continue to serve on any Arbitral Tribunal to which that Arbitrator has been appointed until the completion of proceedings before the Arbitral Tribunal.

4. The Secretary shall ensure that an up-to-date list is maintained of the Arbitrators designated pursuant to this Article.

Article 3

1. The Arbitral Tribunal shall be composed of three Arbitrators who shall be appointed as follows:

   (a) The party to the dispute commencing the proceedings shall appoint one Arbitrator, who may be its national, from the list referred to in Article 2. This appointment shall be included in the notification referred to in Article 4.

(b) Within 40 days of the receipt of that notification, the other party to the dispute shall appoint the second Arbitrator, who may be its national, from the list referred to in Article 2.

(c) Within 60 days of the appointment of the second Arbitrator, the parties to the dispute shall appoint by agreement the third Arbitrator from the list referred to in Article 2.
The third Arbitrator shall not be either a national of a party to the dispute, or a person designated for the list referred to in Article 2 by a party to the dispute, or of the same nationality as either of the first two Arbitrators. The third Arbitrator shall be the Chairperson of the Arbitral Tribunal.

(d) If the second Arbitrator has not been appointed within the prescribed period, or if the parties to the dispute have not reached agreement within the prescribed period on the appointment of the third Arbitrator, the Arbitrator or Arbitrators shall be appointed, at the request of any party to the dispute and within 30 days of the receipt of such request, by the president of the International Court of Justice from the list referred to in Article 2 and subject to the conditions prescribed in subparagraphs (b) and (c) above. In performing the functions accorded him or her in this subparagraph, the President of the Court shall consult the parties to the dispute.

(e) If the President of the International Court of Justice is unable to perform the functions accorded him or her in subparagraph (d) above or is a national of a party to the dispute, the functions shall be performed by the Vice-President of the Court, except that if the Vice-President is unable to perform the functions or is a national of a party to the dispute the functions shall be performed by the next most senior member of the Court who is available and is not a national of a party to the dispute.

2. Any vacancy shall be filled in the manner prescribed for the initial appointment.

3. In any dispute involving more than two Parties, those Parties having the same interest shall appoint one Arbitrator by agreement within the period specified in paragraph 1 (b) above.

Article 4

The party to the dispute commencing proceedings shall so notify the other party or parties to the dispute and the Secretary in writing. Such notification shall include a statement of the claim and the grounds on which it is based. The notification shall be transmitted by the Secretary to all Parties.

Article 5

1. Unless the parties to the dispute agree otherwise, arbitration shall take place at The Hague, where the records of the Arbitral Tribunal shall be kept. The Arbitral Tribunal shall adopt its own rules of procedure. Such rules shall ensure that each party to the dispute has a full opportunity to be heard and to present its case and shall also ensure that the proceedings are conducted expeditiously.

2. The Arbitral Tribunal may hear and decide counterclaims arising out of the dispute.

Article 6

1. The Arbitral Tribunal, where it considers that *prima facie* it has jurisdiction under the Protocol, may:

(a) at the request of any party to a dispute, indicate such provisional measures as it considers necessary to preserve the respective rights of the parties to the dispute;

(b) prescribe any provisional measures which it considers appropriate under the circumstances to prevent serious harm to the Antarctic environment or dependent or associated ecosystems.

2. The parties to the dispute shall comply promptly with any provisional measures prescribed under paragraph 1 (b) above pending an award under Article 10.

3. Notwithstanding the time period in Article 20 of the Protocol, a party to a dispute may at any time, by notification to the other party or parties to the dispute and to the Secretary in accordance with Article 4, request that the Arbitral Tribunal be constituted as a matter of exceptional urgency to indicate or prescribe emergency provisional measures in accordance with this Article. In such case, the Arbitral Tribunal shall be constituted as soon as possible in accordance with Article 3, except that the time periods in Article 3 (1) (b), (c) and (d) shall be reduced to 14 days in each case. The Arbitral Tribunal shall decide upon the request for emergency provisional measures within two months of the appointment of its Chairperson.

4. Following a decision by the Arbitral Tribunal upon a request for emergency provisional measures in accordance with paragraph 3 above, settlement of the dispute shall proceed in accordance with Articles 18, 19 and 20 of the Protocol.

Article 7

Any Party which believes it has a legal interest, whether general or individual, which may be substantially affected by the award of an Arbitral Tribunal, may, unless the Arbitral Tribunal decides otherwise, intervene in the proceedings.

Article 8

The parties to the dispute shall facilitate the work of the Arbitral Tribunal and, in particular, in accordance with their law and using all means at their disposal, shall provide it with all relevant documents and information, and enable it, when necessary, to call witnesses or experts and receive their evidence.

Article 9

If one of the parties to the dispute does not appear before the Arbitral Tribunal or fails to defend its case, any other party to the dispute may request the Arbitral Tribunal to continue the proceedings and make its award.

Article 10

1. The Arbitral Tribunal shall, on the basis of the provisions of the Protocol and other applicable rules and principles of international law that are not incompatible with such provisions, decide such disputes as are submitted to it.

2. The Arbitral Tribunal may decide, *ex aequo et bono*, a dispute submitted to it, if the parties to the dispute so agree.

Article 11

1. Before making its award, the Arbitral Tribunal shall satisfy itself that it has competence in respect of the dispute and that the claim or counterclaim is well founded in fact and law.

2. The award shall be accompanied by a statement of reasons for the decision and shall be communicated to the Secretary who shall transmit it to all Parties.

3. The award shall be final and binding on the parties to the dispute and on any Party which intervened in the proceedings and shall be complied with without delay. The Arbitral Tribunal shall interpret the award at the request of a party to the dispute or of any intervening Party.

4. The award shall have no binding force except in respect of that particular case.

5. Unless the Arbitral Tribunal decides otherwise, the expenses of the Arbitral Tribunal, including the remuneration of the Arbitrators, shall be borne by the parties to the dispute in equal shares.

Article 12

All decisions of the Arbitral Tribunal, including those referred to in Articles 5, 6 and 11, shall be made by a majority of the Arbitrators who may not abstain from voting.

Article 13

1. This Schedule may be amended or modified by a measure adopted in accordance with Article IX (1) of the Antarctic Treaty. Unless the measure specifies otherwise, the amendment or modification shall be deemed to have been approved, and shall become effective, one year after the close of the Antarctic Treaty Consultative Meeting at which it was adopted, unless one or more of the Antarctic Treaty Consultative Parties notifies the Depositary, within that time period, that it wishes an extension of that period or that it is unable to approve the measure.

2. Any amendment or modification of this Schedule which becomes effective in accordance with paragraph 1 above shall thereafter become effective as to any other Party when notice of approval by it has been received by the Depositary.

IN WITNESS WHEREOF, the undersigned Plenipotentiaries, duly authorized, have signed the present Protocol.

DONE at Madrid this fourth day of October, one thousand nine hundred and ninety-one.

ANNEX I TO THE PROTOCOL ON ENVIRONMENTAL PROTECTION TO THE ANTARCTIC TREATY

ENVIRONMENTAL IMPACT ASSESSMENT

ARTICLE 1

PRELIMINARY STAGE

1. The environmental impacts of proposed activities referred to in Article 8 of the Protocol shall, before their commencement, be considered in accordance with appropriate national procedures.

2. If an activity is determined as having less than a minor or transitory impact, the activity may proceed forthwith.

ARTICLE 2

INITIAL ENVIRONMENTAL EVALUATION

1. Unless it has been determined that an activity will have less than a minor or transitory impact, or unless a Comprehensive Environmental Evaluation is being prepared in accordance with Article 3, an Initial Environmental Evaluation shall be prepared. It shall contain sufficient detail to assess whether a proposed activity may have more than a minor or transitory impact and shall include:

(a) a description of the proposed activity, including its purpose, location, duration, and intensity; and

(b) consideration of alternatives to the proposed activity and any impacts that the activity may have, including consideration of cumulative impacts in the light of existing and known planned activities.

2. If an Initial Environmental Evaluation indicates that a proposed activity is likely to have no more than a minor or transitory impact, the activity may proceed, provided that appropriate procedures, which may include monitoring, are put in place to assess and verify the impact of the activity.

ARTICLE 3

COMPREHENSIVE ENVIRONMENTAL EVALUATION

1. If an Initial Environmental Evaluation indicates or if it is otherwise determined that a proposed activity is likely to have more than a minor or transitory impact, a Comprehensive Environmental Evaluation shall be prepared.

2. A Comprehensive Environmental Evaluation shall include:

(a) a description of the proposed activity including its purpose, location, duration and intensity, and possible alternatives to the activity, including the alternative of not proceeding, and the consequences of those alternatives;

(b) a description of the initial environmental reference state with which predicted changes are to be compared and a prediction of the future environmental reference state in the absence of the proposed activity;

(c) a description of the methods and data used to forecast the impacts of the proposed activity;

(d) estimation of the nature, extent, duration, and intensity of the likely direct impacts of the proposed activity;

(e) consideration of possible indirect or second order impacts of the proposed activity;

(f) consideration of cumulative impacts of the proposed activity in the light of existing activities and other known planned activities;

(g) identification of measures, including monitoring programmes, that could be taken to minimise or mitigate impacts of the proposed activity and to detect unforeseen impacts and that could provide early warning of any adverse effects of the activity as well as to deal promptly and effectively with accidents;

(h) identification of unavoidable impacts of the proposed activity;

(i) consideration of the effects of the proposed activity on the conduct of scientific research and on other existing uses and values;

(j) an identification of gaps in knowledge and uncertainties encountered in compiling the information required under this paragraph;

(k) a non-technical summary of the information provided under this paragraph; and

(l) the name and address of the person or organization which prepared the Comprehensive Environmental Evaluation and the address to which comments thereon should be directed.

3. The draft Comprehensive Environmental Evaluation shall be made publicly available and shall be circulated to all Parties, which shall also make it publicly available, for comment. A period of 90 days shall be allowed for the receipt of comments.

4. The draft Comprehensive Environmental Evaluation shall be forwarded to the Committee at the same time as it is circulated to the Parties, and at least 120 days before the next Antarctic Treaty Consultative Meeting, for consideration as appropriate.

5. No final decision shall be taken to proceed with the proposed activity in the Antarctic Treaty area unless there has been an opportunity for consideration of the draft Comprehensive Environmental Evaluation by the Antarctic Treaty Consultative Meeting on the advice of the Committee, provided that no decision to proceed with a proposed activity shall be delayed through the operation of this paragraph for longer than 15 months from the date of circulation of the draft Comprehensive Environmental Evaluation.

6. A final Comprehensive Environmental Evaluation shall address and shall include or summarise comments received on the draft Comprehensive Environmental Evaluation. The final Comprehensive Environmental Evaluation, notice of any decisions relating thereto, and any evaluation of the significance of the predicted impacts in relation to the advantages of the proposed activity, shall be circulated to all Parties, which shall also make them publicly available, at least 60 days before the commencement of the proposed activity in the Antarctic Treaty area.

ARTICLE 4

DECISIONS TO BE BASED ON COMPREHENSIVE ENVIRONMENTAL EVALUATIONS

Any decision on whether a proposed activity, to which Article 3 applies, should proceed, and, if so, whether in its original or in a modified form, shall be based on the Comprehensive Environmental Evaluation as well as other relevant considerations.

ARTICLE 5

MONITORING

1. Procedures shall be put in place, including appropriate monitoring of key environmental indicators, to assess and verify the impact of any activity that proceeds following the completion of a Comprehensive Environmental Evaluation.

2. The procedures referred to in paragraph 1 above and in Article 2 (2) shall be designed to provide a regular and verifiable record of the impacts of the activity in order, inter alia, to:

(a) enable assessments to be made of the extent to which such impacts are consistent with the Protocol; and

(b) provide information useful for minimising or mitigating impacts, and, where appropriate, information on the need for suspension, cancellation or modification of the activity.

ARTICLE 6

CIRCULATION OF INFORMATION

1. The following information shall be circulated to the Parties, forwarded to the Committee and made publicly available:

(a) a description of the procedures referred to in Article 1;

(b) an annual list of any Initial Environmental Evaluations prepared in accordance with Article 2 and any decisions taken in consequence thereof;

(c) significant information obtained, and any action taken in consequence thereof, from procedures put in place in accordance with Articles 2 (2) and 5; and

(d) information referred to in Article 3 (6).

2. Any Initial Environmental Evaluation prepared in accordance with Article 2 shall be made available on request.

ARTICLE 7

CASES OF EMERGENCY

1. This Annex shall not apply in cases of emergency relating to the safety of human life or of ships, aircraft or equipment and facilities of high value, or the protection of the environment, which require an activity to be undertaken without completion of the procedures set out in this Annex.

2. Notice of activities undertaken in cases of emergency, which would otherwise have required preparation of a Comprehensive Environmental Evaluation, shall be circulated immediately to all Parties and to the Committee and a full explanation of the activities carried out shall be provided within 90 days of those activities.

ARTICLE 8

AMENDMENT OR MODIFICATION

1. This Annex may be amended or modified by a measure adopted in accordance with Article IX (1) of the Antarctic Treaty. Unless the measure specifies otherwise, the amendment or modification shall be deemed to have been approved, and shall become effective, one year after the close of the Antarctic Treaty Consultative Meeting at which it was adopted, unless one or more of the Antarctic Treaty Consultative Parties notifies the Depositary, within that period, that it wishes an extension of that period or that it is unable to approve the measure.

2. Any amendment or modification of this Annex which becomes effective in accordance with paragraph 1 above shall thereafter become effective as to any other Party when notice of approval by it has been received by the Depositary.

ANNEX II TO THE PROTOCOL ON ENVIRONMENTAL PROTECTION TO THE ANTARCTIC TREATY CONSERVATION OF ANTARCTIC FAUNA AND FLORA

ARTICLE 1

DEFINITIONS

For the purposes of this Annex:

(a) "native mammal" means any member of any species belonging to the Class Mammalia, indigenous to the Antarctic Treaty area or occurring there seasonally through natural migrations;

(b) "native bird" means any member, at any stage of its life cycle (including eggs), of any species of the Class Aves indigenous to the Antarctic Treaty area or occurring there seasonally through natural migrations;

(c) "native plant" means any terrestrial or freshwater vegetation, including bryophytes, lichens, fungi and algae, at any stage of its life cycle (including seeds, and other propagules), indigenous to the Antarctic Treaty area;

(d) "native invertebrate" means any terrestrial or freshwater invertebrate, at any stage of its life cycle, indigenous to the Antarctic Treaty area;

(e) "appropriate authority" means any person or agency authorized by a Party to issue permits under this Annex;

(f) "permit" means a formal permission in writing issued by an appropriate authority;

(g) "take" or "taking" means to kill, injure, capture, handle or molest, a native mammal or bird, or to remove or damage such quantities of native plants that their local distribution or abundance would be significantly affected;

(h) "harmful interference" means:

(i) flying or landing helicopters or other aircraft in a manner that disturbs concentrations of birds and seals;

(ii) using vehicles or vessels, including hovercraft and small boats, in a manner that disturbs concentrations of birds and seals;

(iii) using explosives or firearms in a manner that disturbs concentrations of birds and seals;

(iv) wilfully disturbing breeding or moulting birds or concentrations of birds and seals by persons on foot;

(v) significantly damaging concentrations of native terrestrial plants by landing aircraft, driving vehicles, or walking on them, or by other means; and

(vi) any activity that results in the significant adverse modification of habitats of any species or population of native mammal, bird, plant or invertebrate.

(i) "International Convention for the Regulation of Whaling" means the Convention done at Washington on 2 December 1946.

ARTICLE 2

CASES OF EMERGENCY

1. This Annex shall not apply in cases of emergency relating to the safety of human life or of ships, aircraft, or equipment and facilities of high value, or the protection of the environment.

2. Notice of activities undertaken in cases of emergency shall be circulated immediately to all Parties and to the Committee.

ARTICLE 3

PROTECTION OF NATIVE FAUNA AND FLORA

1. Taking or harmful interference shall be prohibited, except in accordance with a permit.

2. Such permits shall specify the authorized activity, including when, where and by whom it is to be conducted and shall be issued only in the following circumstances:

(a) to provide specimens for scientific study or scientific information;

(b) to provide specimens for museums, herbaria, zoological and botanical gardens, or other educational or cultural institutions or uses; and

(c) to provide for unavoidable consequences of scientific activities not otherwise authorized under sub-paragraphs (a) or (b) above, or of the construction and operation of scientific support facilities.

3. The issue of such permits shall be limited so as to ensure that:

(a) no more native mammals, birds, or plants are taken than are strictly necessary to meet the purposes set forth in paragraph 2 above;

(b) only small numbers of native mammals or birds are killed and in no case more native mammals or birds are killed from local populations than can, in combination with other permitted takings, normally be replaced by natural reproduction in the following season; and

(c) the diversity of species, as well as the habitats essential to their existence, and the balance of the ecological systems existing within the Antarctic Treaty area are maintained.

4. Any species of native mammals, birds and plants listed in Appendix A to this Annex shall be designated "Specially Protected Species", and shall be accorded special protection by the parties.

5. A permit shall not be issued to take a Specially Protected Species unless the taking:

(a) is for a compelling scientific purpose;

(b) will not jeopardize the survival or recovery of that species or local population; and

(c) uses non-lethal techniques where appropriate.

6. All taking of native mammals and birds shall be done in the manner that involves the least degree of pain and suffering practicable.

ARTICLE 4

INTRODUCTION OF NON-NATIVE SPECIES, PARASITES AND DISEASES

1. No species of animal or plant not native to the Antarctic Treaty area shall be introduced onto land or ice shelves, or into water in the Antarctic Treaty area except in accordance with a permit.

2. Dogs shall not be introduced onto land or ice shelves and dogs currently in those areas shall be removed by April 1, 1994.

3. Permits under paragraph 1 above shall be issued to allow the importation only of the animals and plants listed in Appendix B to this Annex and shall specify the species, numbers and, if appropriate, age and sex and precautions to be taken to prevent escape or contact with native fauna and flora.

4. Any plant or animal for which a permit has been issued in accordance with paragraphs 1 and 3 above, shall, prior to expiration of the permit, be removed from the Antarctic Treaty area or be disposed of by incineration or equally effective means that eliminates risk to native fauna or flora. The permit shall specify this obligation. Any other plant or animal introduced into the Antarctic Treaty area not native to that area, including any progeny, shall be removed or disposed of, by incineration or by equally effective means, so as to be rendered sterile, unless it is determined that they pose no risk to native flora or fauna.

5. Nothing in this Article shall apply to the importation of food into the Antarctic Treaty area provided that no live animals are imported for this purpose and all plants and animal parts and products are kept under carefully controlled conditions and disposed of in accordance with Annex III to the Protocol and Appendix C to this Annex.

6. Each Party shall require that precautions, including those listed in Appendix C to this Annex, be taken to prevent the introduction of micro-organisms (e.g., viruses, bacteria, parasites, yeasts, fungi) not present in the native fauna and flora.

ARTICLE 5

INFORMATION

Each Party shall prepare and make available information setting forth, in particular, prohibited activities and providing lists of Specially Protected Species and relevant Protected Areas to all those persons present in or intending to enter the Antarctic Treaty area with a view to ensuring that such persons understand and observe the provisions of this Annex.

ARTICLE 6

EXCHANGE OF INFORMATION

1. The Parties shall make arrangements for:

   (a) collecting and exchanging records (including records of permits) and statistics concerning the numbers or quantities of each species of native mammal, bird or plant taken annually in the Antarctic Treaty area;

   (b) obtaining and exchanging information as to the status of native mammals, birds, plants, and invertebrates in the Antarctic Treaty area, and the extent to which any species or population needs protection;

   (c) establishing a common form in which this information shall be submitted by Parties in accordance with paragraph 2 below.

2. Each Party shall inform the other Parties as well as the Committee before the end of November of each year of any step taken pursuant to paragraph 1 above and of the number and nature of permits issued under this Annex in the preceding period of 1st July to 30th June.

ARTICLE 7

RELATIONSHIP WITH OTHER AGREEMENTS OUTSIDE THE ANTARCTIC TREATY SYSTEM

Nothing in this Annex shall derogate from the rights and obligations of Parties under the International Convention for the Regulation of Whaling.

ARTICLE 8

REVIEW

The Parties shall keep under continuing review measures for the conservation of Antarctic fauna and flora, taking into account any recommendations from the Committee.

ARTICLE 9

AMENDMENT OR MODIFICATION

1. This Annex may be amended or modified by a measure adopted in accordance with Article IX (1) of the Antarctic Treaty. Unless the measure specifies otherwise, the amendment or modification shall be deemed to have been approved, and shall become effective, one year after the close of the Antarctic Treaty Consultative Meeting at which it was adopted, unless one or more of the Antarctic Treaty Consultative Parties notifies the Depositary, within that time period, that it wishes an extension of that period or that it is unable to approve the measure.

2. Any amendment or modification of this Annex which becomes effective in accordance with paragraph 1 above shall thereafter become effective as to any other Party when notice of approval by it has been received by the Depositary.

APPENDICES TO THE ANNEX

APPENDIX A:
SPECIALLY PROTECTED SPECIES

All species of the genus *Arctocephalus*, Fur Seals. *Ommatophoca rossii*, Ross Seal.

APPENDIX B:
IMPORTATION OF ANIMALS AND PLANTS

The following animals and plants may be imported into the Antarctic Treaty area in accordance with permits issued under Article 4 of this Annex:

(a) domestic plants; and

(b) laboratory animals and plants including viruses, bacteria, yeasts and fungi.

APPENDIX C:
PRECAUTIONS TO PREVENT INTRODUCTION OF MICRO-ORGANISMS

1. Poultry. No live poultry or other living birds shall be brought into the Antarctic Treaty area. Before dressed poultry is packaged for shipment to the Antarctic Treaty area, it shall be inspected for evidence of disease, such as Newcastle's Disease, tuberculosis, and yeast infection. Any poultry or parts not consumed shall be removed from the Antarctic Treaty area or disposed of by incineration or equivalent means that eliminates risks to native flora and fauna.

2. The importation of non-sterile soil shall be avoided to the maximum extent practicable.

ANNEX III TO THE PROTOCOL ON ENVIRONMENTAL PROTECTION TO THE ANTARCTIC TREATY

WASTE DISPOSAL AND WASTE MANAGEMENT

ARTICLE 1

GENERAL OBLIGATIONS

1. This Annex shall apply to activities undertaken in the Antarctic Treaty area pursuant to scientific research programmes, tourism and all other governmental and non-governmental activities in the Antarctic Treaty area for which advance notice is required under Article VII (5) of the Antarctic Treaty, including associated logistic support activities.

2. The amount of wastes produced or disposed of in the Antarctic Treaty area shall be reduced as far as practicable so as to minimise impact on the Antarctic environment and to minimise interference with the natural values of Antarctica, with scientific research and with other uses of Antarctica which are consistent with the Antarctic Treaty.

3. Waste storage, disposal and removal from the Antarctic Treaty area, as well as recycling and source reduction, shall be essential considerations in the planning and conduct of activities in the Antarctic Treaty area.

4. Wastes removed from the Antarctic Treaty area shall, to the maximum extent practicable, be returned to the country from which the activities generating the waste were organized or to any other country in which arrangements have been made for the disposal of such wastes in accordance with relevant international agreements.

5. Past and present waste disposal sites on land and abandoned work sites of Antarctic activities shall be cleaned up by the generator of such wastes and the user of such sites. This obligation shall not be interpreted as requiring:

(a) the removal of any structure designated as a historic site or monument; or

(b) the removal of any structure or waste material in circumstances where the removal by any practical option would result in greater adverse environmental impact than leaving the structure or waste material in its existing location.

ARTICLE 2

WASTE DISPOSAL BY REMOVAL FROM THE ANTARCTIC TREATY AREA

1. The following wastes, if generated after entry into force of this Annex, shall be removed from the Antarctic Treaty area by the generator of such wastes:

(a) radio-active materials;

(b) electrical batteries;

(c) fuel, both liquid and solid;

(d) wastes containing harmful levels of heavy metals or acutely toxic or harmful persistent compounds;

(e) poly-vinyl chloride (PVC), polyurethane foam, polystyrene foam, rubber and lubricating oils, treated timbers and other products which contain additives that could produce harmful emissions if incinerated;

(f) all other plastic wastes, except low density polyethylene containers (such as bags for storing wastes), provided that such containers shall be incinerated in accordance with Article 3 (1);

(g) fuel drums; and

(h) other solid, non-combustible wastes;

provided that the obligation to remove drums and solid non-combustible wastes contained in subparagraphs (g) and (h) above shall not apply in circumstances where the removal of such wastes by any practical option would result in greater adverse environmental impact than leaving them in their existing locations.

2. Liquid wastes which are not covered by paragraph 1 above and sewage and domestic liquid wastes, shall, to the maximum extent practicable, be removed from the Antarctic Treaty area by the generator of such wastes.

3. The following wastes shall be removed from the Antarctic Treaty area by the generator of such wastes, unless incinerated, autoclaved or otherwise treated to be made sterile:

(a) residues of carcasses of imported animals;

(b) laboratory culture of micro-organisms and plant pathogens; and

(c) introduced avian products.

ARTICLE 3

WASTE DISPOSAL BY INCINERATION

1. Subject to paragraph 2 below, combustible wastes, other than those referred to in Article 2 (1), which are not removed from the Antarctic Treaty area shall be burnt in incinerators which to the maximum extent practicable reduce harmful emissions. Any emission standards and equipment guidelines which may be recommended by, inter alia, the Committee and the Scientific Committee on Antarctic Research shall be taken into account. The solid residue of such incineration shall be removed from the Antarctic Treaty area.

2. All open burning of wastes shall be phased out as soon as practicable, but no later than the end of the 1998/1999 season. Pending the completion of such phase-out, when it is necessary to dispose of wastes by open burning, allowance shall be made for the wind direction and speed and the type of wastes to be burnt to limit particulate deposition and to avoid such deposition over areas of special biological, scientific, historic, aesthetic or wilderness significance including, in particular, areas accorded protection under the Antarctic Treaty.

ARTICLE 4

OTHER WASTE DISPOSAL ON LAND

1. Wastes not removed or disposed of in accordance with Articles 2 and 3 shall not be disposed of onto ice-free areas or into fresh water systems.

2. Sewage, domestic liquid wastes and other liquid wastes not removed from the Antarctic Treaty area in accordance with Article 2, shall, to the maximum extent practicable, not be disposed of onto sea ice, ice shelves or the grounded ice-sheet, provided that such wastes which are generated by stations located inland on ice shelves or on the grounded ice-sheet may be disposed of in deep ice pits where such disposal is the only practicable option. Such pits shall not be located on known ice-flow lines which terminate at ice-free areas or in areas of high ablation.

3. Wastes generated at field camps shall, to the maximum extent practicable, be removed by the generator of such wastes to supporting stations or ships for disposal in accordance with this Annex.

ARTICLE 5

DISPOSAL OF WASTE IN THE SEA

1. Sewage and domestic liquid wastes may be discharged directly into the sea, taking into account the assimilative capacity of the receiving marine environment and provided that:

   (a) such discharge is located, wherever practicable, where conditions exist for initial dilution and rapid dispersal; and

   (b) large quantities of such wastes (generated in a station where the average weekly occupancy over the austral summer is approximately 30 individuals or more) shall be treated at least by maceration.

2. The by-product of sewage treatment by the Rotary Biological Contacter process or similar processes may be disposed of into the sea provided that such disposal does not adversely affect the local environment, and provided also that any such disposal at sea shall be in accordance with Annex IV to the Protocol.

ARTICLE 6

STORAGE OF WASTE

All wastes to be removed from the Antarctic Treaty area, or otherwise disposed of, shall be stored in such a way as to prevent their dispersal into the environment.

ARTICLE 7

PROHIBITED PRODUCTS

No polychlorinated biphenyls (PCBs), non-sterile soil, polystyrene beads, chips or similar forms of packaging, or pesticides (other than those required for scientific, medical or hygiene purposes) shall be introduced onto land or ice shelves or into water in the Antarctic Treaty area.

ARTICLE 8

WASTE MANAGEMENT PLANNING

1. Each Party which itself conducts activities in the Antarctic Treaty area shall, in respect of those activities, establish a waste disposal classification system as a basis for recording wastes and to facilitate studies aimed at evaluating the environmental impacts of scientific activity and associated logistic support. To that end, wastes produced shall be classified as:

(a) sewage and domestic liquid wastes (Group 1);

(b) other liquid wastes and chemicals, including fuels and lubricants (Group 2);

(c) solids to be combusted (Group 3);

(d) other solid wastes (Group 4); and

(e) radioactive material (Group 5).

2. In order to reduce further the impact of waste on the Antarctic environment, each such Party shall prepare and annually review and update its waste management plans (including waste reduction, storage and disposal), specifying for each fixed site, for field camps generally, and for each ship (other than small boats that are part of the operations of fixed sites or of ships and taking into account existing management plans for ships):

(a) programmes for cleaning up existing waste disposal sites and abandoned work sites;

(b) current and planned waste management arrangements, including final disposal;

(c) current and planned arrangements for analysing the environmental effects of waste and waste management; and

(d) other efforts to minimise any environmental effects of wastes and waste management.

3. Each such Party shall, as far as is practicable, also prepare an inventory of locations of past activities (such as traverses, fuel depots, field bases, crashed aircraft) before the information is lost, so that such locations can be taken into account in planning future scientific programmes (such as snow chemistry, pollutants in lichens or ice core drilling).

ARTICLE 9

CIRCULATION AND REVIEW OF WASTE MANAGEMENT PLANS

1. The waste management plans prepared in accordance with Article 8, reports on their implementation, and the inventories referred to in Article 8 (3), shall be included in the annual exchanges of information in accordance with Articles III and VII of the Antarctic Treaty and related Recommendations under Article IX of the Antarctic Treaty.

2. Each Party shall send copies of its waste management plans, and reports on their implementation and review, to the Committee.

3. The Committee may review waste management plans and reports thereon and may offer comments, including suggestions for minimising impacts and modifications and improvement to the plans, for the consideration of the Parties.

4. The Parties may exchange information and provide advice on, inter alia, available low waste technologies, reconversion of existing installations, special requirements for effluents, and appropriate disposal and discharge methods.

ARTICLE 10

MANAGEMENT PRACTICES

Each Party shall:

(a) designate a waste management official to develop and monitor waste management plans; in the field, this responsibility shall be delegated to an appropriate person at each site;

(b) ensure that members of its expeditions receive training designed to limit the impact of its operations on the Antarctic environment and to inform them of requirements of this Annex; and

(c) discourage the use of poly-vinyl chloride (PVC) products and ensure that its expeditions to the Antarctic Treaty area are advised of any PVC products they may introduce into that area in order that these products may be removed subsequently in accordance with this Annex.

ARTICLE 11

REVIEW

This Annex shall be subject to regular review in order to ensure that it is updated to reflect improvement in waste disposal technology and procedures and to ensure thereby maximum protection of the Antarctic environment.

ARTICLE 12

CASES OF EMERGENCY

1. This Annex shall not apply in cases of emergency relating to the safety of human life or of ships, aircraft or equipment and facilities of high value or the protection of the environment.

2. Notice of activities undertaken in cases of emergency shall be circulated immediately to all Parties and to the Committee.

ARTICLE 13

AMENDMENT OR MODIFICATION

1. This Annex may be amended or modified by a measure adopted in accordance with Article IX (1) of the Antarctic Treaty. Unless the measure specifies otherwise, the amendment or modification shall be deemed to have been approved, and shall become effective, one year after the close of the Antarctic Treaty Consultative Meeting at which it was adopted, unless one or more of the Antarctic Treaty Consultative Parties notifies the Depositary, within that time period, that it wishes an extension of that period or that it is unable to approve the amendment.

2. Any amendment or modification of this Annex which becomes effective in accordance with paragraph 1 above shall thereafter become effective as to any other Party when notice of approval by it has been received by the Depositary.

ANNEX IV TO THE PROTOCOL ON ENVIRONMENTAL PROTECTION TO THE ANTARCTIC TREATY

PREVENTION OF MARINE POLLUTION

ARTICLE I

DEFINITIONS

For the purposes of this Annex:

(a) "discharge" means any release howsoever caused from a ship and includes any escape, disposal, spilling, leaking, pumping, emitting or emptying;

(b) "garbage" means all kinds of victual, domestic and operational waste excluding fresh fish and parts thereof, generated during the normal operation of the ship, except those substances which are covered by Articles 3 and 4;

(c) "MARPOL 73/78" means the International Convention for the Prevention of Pollution from Ships, 1973, as amended by the Protocol of 1978 relating thereto and by any other amendment in force thereafter;

(d) "noxious liquid substance" means any noxious liquid substance as defined in Annex II of MARPOL 73/78;

(e) "oil" means petroleum in any form including crude oil, fuel oil, sludge, oil refuse and refined oil products (other than petrochemicals which are subject to the provisions of Article 4);

(f) "oily mixture" means a mixture with any oil content; and

(g) "ship" means a vessel of any type whatsoever operating in the marine environment and includes hydrofoil boats, air-cushion vehicles, submersibles, floating craft and fixed or floating platforms.

ARTICLE 2

APPLICATION

This Annex applies, with respect to each Party, to ships entitled to fly its flag and to any other ship engaged in or supporting its Antarctic operations, while operating in the Antarctic Treaty area.

ARTICLE 3

DISCHARGE OF OIL

1. Any discharge into the sea of oil or oily mixture shall he prohibited, except in cases permitted under Annex I of MARPOL 73/78. While operating in the Antarctic Treaty area, ships shall retain on board all sludge, dirty ballast, tank washing waters and other oily residues and mixtures which may not be discharged into the sea. Ships shall discharge these residues only outside the Antarctic Treaty area, at reception facilities or as otherwise permitted under Annex I of MARPOL 73/78.

2. This Article shall not apply to:

(a) the discharge into the sea of oil or oily mixture resulting from damage to a ship or its equipment:

(i) provided that all reasonable precautions have been taken after the occurrence of the damage or discovery of the discharge for the purpose of preventing or minimising the discharge; and

(ii) except if the owner or the Master acted either with intent to cause damage, or recklessly and with the knowledge that damage would probably result; or

(b) the discharge into the sea of substances containing oil which are being used for the purpose of combating specific pollution incidents in order to minimise the damage from pollution.

ARTICLE 4

DISCHARGE OF NOXIOUS LIQUID SUBSTANCES

The discharge into the sea of any noxious liquid substance, and any other chemical or other substances, in quantities or concentrations that are harmful to the marine environment, shall be prohibited.

ARTICLE 5

DISPOSAL OF GARBAGE

1. The disposal into the sea of all plastics, including but not limited to synthetic ropes, synthetic fishing nets, and plastic garbage bags, shall be prohibited.

2. The disposal into the sea of all other garbage, including paper products, rags, glass, metal, bottles, crockery, incineration ash, dunnage, lining and packing materials, shall be prohibited.

3. The disposal into the sea of food wastes may be permitted when they have been passed through a comminuter or grinder, provided that such disposal shall, except in cases permitted under Annex V of MARPOL 73/78, be made as far as practicable from land and ice shelves but in any case not less than 12 nautical miles from the nearest land or ice shelf. Such comminuted or ground food wastes shall be capable of passing through a screen with openings no greater than 25 millimeters.

4. When a substance or material covered by this article is mixed with other such substance or material for discharge or disposal, having different disposal or discharge requirements, the most stringent disposal or discharge requirements shall apply.

5. The provisions of paragraphs 1 and 2 above shall not apply to:

(a) the escape of garbage resulting from damage to a ship or its equipment provided all reasonable precautions have been taken, before and after the occurrence of the damage, for the purpose of preventing or minimising the escape; or

(b) the accidental loss of synthetic fishing nets, provided all reasonable precautions have been taken to prevent such loss.

6. The Parties shall, where appropriate, require the use of garbage record books.

ARTICLE 6

DISCHARGE OF SEWAGE

1. Except where it would unduly impair Antarctic operations:

   (a) each Party shall eliminate all discharge into the sea of untreated sewage ("sewage" being defined in Annex IV of MARPOL 73/78) within 12 nautical miles of land or ice shelves;

   (b) beyond such distance, sewage stored in a holding tank shall not be discharged instantaneously but at a moderate rate and, where practicable, while the ship is en route at a speed of no less than 4 knots.

This paragraph does not apply to ships certified to carry not more than 10 persons.

2. The Parties shall, where appropriate, require the use of sewage record books.

ARTICLE 7

CASES OF EMERGENCY

1. Articles 3, 4, 5 and 6 of this Annex shall not apply in cases of emergency relating to the safety of a ship and those on board or saving life at sea.

2. Notice of activities undertaken in cases of emergency shall be circulated immediately to all Parties and to the Committee.

ARTICLE 8

EFFECT ON DEPENDENT AND ASSOCIATED ECOSYSTEMS

In implementing the provisions of this Annex, due consideration shall be given to the need to avoid detrimental effects on dependent and associated ecosystems, outside the Antarctic Treaty area.

ARTICLE 9

SHIP RETENTION CAPACITY AND RECEPTION FACILITIES

1. Each Party shall undertake to ensure that all ships entitled to fly its flag and any other ship engaged in or supporting its Antarctic operations, before entering the Antarctic Treaty area, are fitted with a tank or tanks of sufficient capacity on board for the retention of all sludge, dirty ballast, tank washing water and other oily residues and mixtures, and have sufficient capacity on board for the retention of garbage, while operating in the Antarctic Treaty area and have concluded arrangements to discharge such oily residues and garbage at a reception facility after leaving that area. Ships shall also have sufficient capacity on board for the retention of noxious liquid substances.

2. Each Party at whose ports ships depart en route to or arrive from the Antarctic Treaty area undertakes to ensure that as soon as practicable adequate facilities are provided for the reception of all sludge, dirty ballast, tank washing water, other oily residues and mixtures, and garbage from ships, without causing undue delay, and according to the needs of the ships using them.

3. Parties operating ships which depart to or arrive from the Antarctic Treaty area at ports of other Parties shall consult with those Parties with a view to ensuring that the establishment of port reception facilities does not place an inequitable burden on Parties adjacent to the Antarctic Treaty area.

ARTICLE 10

DESIGN, CONSTRUCTION, MANNING AND EQUIPMENT OF SHIPS

In the design, construction, manning and equipment of ships engaged in or supporting Antarctic operations, each Party shall take into account the objectives of this Annex.

ARTICLE 11

SOVEREIGN IMMUNITY

1. This Annex shall not apply to any warship, naval auxiliary or other ship owned or operated by a State and used, for the time being, only on government non-commercial service. However, each Party shall ensure by the adoption of appropriate measures not impairing the operations or operational capabilities of such ships owned or operated by it, that such ships act in a manner consistent, so far as is reasonable and practicable, with this Annex.

2. In applying paragraph 1 above, each Party shall take into account the importance of protecting the Antarctic environment.

3. Each Party shall inform the other Parties of how it implements this provision.

4. The dispute settlement procedure set out in Articles 18 to 20 of the Protocol shall not apply to this Article.

ARTICLE 12

PREVENTIVE MEASURES AND EMERGENCY PREPAREDNESS AND RESPONSE

1. In order to respond more effectively to marine pollution emergencies or the threat thereof in the Antarctic Treaty area, the Parties, in accordance with Article 15 of the Protocol, shall develop contingency plans for marine pollution response in the Antarctic Treaty area, including contingency plans for ships (other than small boats that are part of the operations of fixed sites or of ships) operating in the Antarctic Treaty area, particularly ships carrying oil as cargo, and for oil spills, originating from coastal installations, which enter into the marine environment. To this end they shall:

   (a) co-operate in the formulation and implementation of such plans; and

   (b) draw on the advice of the Committee, the International Maritime Organization and other international organizations.

2. The Parties shall also establish procedures for cooperative response to pollution emergencies and shall take appropriate response actions in accordance with such procedures.

ARTICLE 13

REVIEW

The Parties shall keep under continuous review the provisions of this Annex and other measures to prevent, reduce and respond to pollution of the Antarctic marine environment, including any amendments and new regulations adopted under MARPOL 73/78, with a view to achieving the objectives of this Annex.

ARTICLE 14

RELATIONSHIP WITH MARPOL 73/78

With respect to those Parties which are also Parties to MARPOL 73/78, nothing in this Annex shall derogate from the specific rights and obligations thereunder.

ARTICLE 15

AMENDMENT OR MODIFICATION

1. This Annex may be amended or modified by a measure adopted in accordance with Article IX (1) of the Antarctic Treaty. Unless the measure specifies otherwise, the amendment or modification shall be deemed to have been approved, and shall become effective, one year after the close of the Antarctic Treaty Consultative Meeting at which it was adopted, unless one or more of the Antarctic Treaty Consultative Parties notifies the Depositary, within that time period, that it wishes an extension of that period or that it is unable to approve the measure.

2. Any amendment or modification of this Annex which becomes effective in accordance with paragraph 1 above shall thereafter become effective as to any other Party when notice of approval by it has been received by the Depositary.

ANNEX V TO THE PROTOCOL ON ENVIRONMENTAL PROTECTION TO THE ANTARCTIC TREATY

AREA PROTECTION AND MANAGEMENT

ARTICLE 1

DEFINITIONS

For the purposes of this Annex:

(a) "appropriate authority" means any person or agency authorised by a Party to issue permits under this Annex;

(b) "permit" means a formal permission in writing issued by an appropriate authority;

(c) "Management Plan" means a plan to manage the activities and protect the special value or values in an Antarctic Specially Protected Area or an Antarctic Specially Managed Area.

ARTICLE 2

OBJECTIVES

For the purposes set out in this Annex, any area, including any marine area, may be designated as an Antarctic Specially Protected Area or an Antarctic Specially Managed Area. Activities in those Areas shall be prohibited, restricted or managed in accordance with Management Plans adopted under the provisions of this Annex.

ARTICLE 3

ANTARCTIC SPECIALLY PROTECTED AREAS

1. Any area, including any marine area, may be designated as an Antarctic Specially Protected Area to protect outstanding environmental, scientific, historic, aesthetic or wilderness values, any combination of those values, or ongoing or planned scientific research.

2. Parties shall seek to identify, within a systematic environmental-geographical framework, and to include in the series of Antarctic Specially Protected Areas:

(a) areas kept inviolate from human interference so that future comparisons may be possible with localities that have been affected by human activities;

(b) representative examples of major terrestrial, including glacial and aquatic, ecosystems and marine ecosystems;

(c) areas with important or unusual assemblages of species, including major colonies of breeding native birds or mammals;

(d) the type locality or only known habitat of any species;

(e) areas of particular interest to ongoing or planned scientific research;

(f) examples of outstanding geological, glaciological or geomorphological features;

(g) areas of outstanding aesthetic and wilderness value;

(h) sites or monuments of recognised historic value; and

(i) such other areas as may be appropriate to protect the values set out in paragraph 1 above.

3. Specially Protected Areas and Sites of Special Scientific Interest designated as such by past Antarctic Treaty Consultative Meetings are hereby designated as Antarctic Specially Protected Areas and shall be renamed and renumbered accordingly.

4. Entry into an Antarctic Specially Protected Area shall be prohibited except in accordance with a permit issued under Article 7.

ARTICLE 4

ANTARCTIC SPECIALLY MANAGED AREAS

1. Any area, including any marine area, where activities are being conducted or may in the future be conducted, may be designated as an Antarctic Specially Managed Area to assist in the planning and co-ordination of activities, avoid possible conflicts, improve co-operation between Parties or minimise environmental impacts.

2. Antarctic Specially Managed Areas may include:

(a) areas where activities pose risks of mutual interference or cumulative environmental impacts; and

(b) sites or monuments of recognised historic value.

3. Entry into an Antarctic Specially Managed Area shall not require a permit.

4. Notwithstanding paragraph 3 above, an Antarctic Specially Managed Area may contain one of more Antarctic Specially Protected Areas, entry into which shall be prohibited except in accordance with a permit issued under Article 7.

ARTICLE 5

MANAGEMENT PLANS

1. Any Party, the Committee, the Scientific Committee for Antarctic Research or the Commission for the Conservation of Antarctic Marine Living Resources may propose an area for designation as an Antarctic Specially Protected Area or an Antarctic Specially Managed Areas by submitting a proposed Management Plan to the Antarctic Treaty Consultative Meeting.

2. The area proposed for designation shall be of sufficient size to protect the values for which the special protection or management is required.

3. Proposed Management Plans shall include, as appropriate:

(a) a description of the value or values for which special protection or management is required;

(b) a statement of the aims and objectives of the Management Plan for the protection or management of those values;

(c) management activities which are to be undertaken to protect the values for which special protection or management is required;

(d) a period of designation, if any;

(e) a description of the area, including:

(i) the geographical co-ordinates, boundary markers and natural features that delineate the area;

(ii) access to the area by land, sea or air, including marine approaches and anchorages, pedestrian and vehicular routes within the area, and aircraft routes and landing areas;

(iii) the location of structures, including scientific stations, research or refuge facilities, both within the area and near to it; and

(iv) the location in or near the area of other Antarctic Specially Protected Areas or Antarctic Specially Managed Areas designated under this Annex, or other protected areas designated in accordance with measures adopted under other components of the Antarctic Treaty System;

(f) the identification of zones within the area, in which activities are to be prohibited, restricted or managed for the purpose of achieving the aims and objectives referred to in subparagraph (b) above;

(g) maps and photographs that show clearly the boundary of the area in relation to surrounding features and key features within the area;

(h) supporting documentation;

(i) in respect of an area proposed for designation as an Antarctic Specially Protected Area, a clear description of the conditions under which permits may be granted by the appropriate authority regarding:

(i) access to and movement within or over the area;

(ii) activities which are or may be conducted within the area, including restrictions on time and place;

(iii) the installation, modification, or removal of structures;

(iv) the location of field camps;

(v) restrictions on materials and organisms which may be brought into the area;

(vi) the taking of or harmful interference with native flora and fauna;

(vii) the collection or removal of anything not brought into the area by the permit-holder;

(viii) the disposal of waste;

(ix) measures that may be necessary to ensure that the aims and objectives of the Management Plan can continue to be met; and

(x) requirements for reports to be made to the appropriate authority regarding visits to the area;

(j) in respect of an area proposed for designation as an Antarctic Specially Managed Area, a code of conduct regarding:

(i) access to and movement within or over the area;

(ii) activities which are or may be conducted within the area, including restrictions on time and place;

(iii) the installation, modification, or removal of structures;

(iv) the location of field camps;

(v) the taking of or harmful interference with native flora and fauna;

(vi) the collection or removal of anything not brought into the area by the visitor;

(vii) the disposal of waste; and

(viii) any requirements for reports to be made to the appropriate authority regarding visits to the area; and

(k) provisions relating to the circumstances in which Parties should seek to exchange information in advance of activities which they propose to conduct.

ARTICLE 6

DESIGNATION PROCEDURES

1. Proposed Management Plans shall be forwarded to the Committee, the Scientific Committee on Antarctic Research and, as appropriate, to the Commission for the Conservation of Antarctic Marine Living Resources. In formulating its advice to the Antarctic Treaty Consultative Meeting, the Committee shall take into account any comments provided by the Scientific Committee on Antarctic Research and, as appropriate, by the Commission for the Conservation of Antarctic Marine Living Resources. Thereafter, Management Plans may be approved by the Antarctic Treaty Consultative Parties by a measure adopted at an Antarctic Treaty Consultative Meeting in accordance with Article IX(1) of the Antarctic Treaty. Unless the measure specifies otherwise, the Plan shall be deemed to have been approved 90 days after the close of the Antarctic Treaty Consultative Meeting at which it was adopted, unless one or more of the Consultative Parties notifies the Depositary, within that time period, that it wishes an extension of that period or is unable to approve the measure.

2. Having regard to the provisions of Articles 4 and 5 of the Protocol, no marine area shall be designated as an Antarctic Specially Protected Area or an Antarctic Specially Managed Area without the prior approval of the Commission for the Conservation of Antarctic Marine Living Resources.

3. Designation of an Antarctic Specially Protected Area or an Antarctic Specially Managed Area shall be for an indefinite period unless the Management Plan provides otherwise. A review of a Management Plan shall be initiated at least every five years. The Plan shall be updated as necessary.

4. Management Plans may be amended or revoked in accordance with paragraph 1 above.

5. Upon approval, Management Plans shall be circulated promptly by the Depositary to all Parties. The Depositary shall maintain a record of all currently approved Management Plans.

ARTICLE 7

PERMITS

1. Each Party shall appoint an appropriate authority to issue permits to enter and engage in activities within an Antarctic Specially Protected Area in accordance with the requirements of the Management Plan relating to that Area. The permit shall be accompanied by the relevant sections of the Management Plan and shall specify the extent and location of the Area, the authorised activities and when, where and by whom the activities are authorised and any other conditions imposed by the Management Plan.

2. In the case of a Specially Protected Area designated as such by past Antarctic Treaty Consultative Meetings which does not have a Management Plan, the appropriate authority may issue a permit for a compelling scientific purpose which cannot be served elsewhere and which will not jeopardise the natural ecological system in that Area.

3. Each Party shall require a permit-holder to carry a copy of the permit while in the Antarctic Specially Protected Area concerned.

ARTICLE 8

HISTORIC SITES AND MONUMENTS

1. Sites or monuments of recognised historic value which have been designated as Antarctic Specially Protected Areas or Antarctic Specially Managed Areas, or which are located within such Areas, shall be listed as Historic Sites and Monuments.

2. Any Party may propose a site or monument of recognised historic value which has not been designated as an Antarctic Specially Protected Area or an Antarctic Specially Managed Area, or which is not located within such an Area, for listing as a Historic Site or Monument. The proposal for listing may be approved by the Antarctic Treaty Consultative Parties by a measure adopted at an Antarctic Treaty Consultative Meeting in accordance with Article IX (1) of the Antarctic Treaty. Unless the measure specifies otherwise, the proposal shall be deemed to have been approved 90 days after the close of the Antarctic Treaty Consultative Meeting at which it was adopted, unless one or more of the Consultative Parties notifies the Depositary, within that time period, that it wishes an extension of that period or is unable to approve the measure.

3. Existing Historic Sites and Monuments which have been listed as such by previous Antarctic Treaty Consultative Meetings shall be included in the list of Historic Sites and Monuments under this Article.

4. Listed Historic Sites and Monuments shall not be damaged, removed or destroyed.

5. The list of Historic Sites and Monuments may be amended in accordance with paragraph 2 above. The Depositary shall maintain a list of current Historic Sites and Monuments.

ARTICLE 9

INFORMATION AND PUBLICITY

1. With a view to ensuring that all persons visiting or proposing to visit Antarctica understand and observe the provisions of this Annex, each Party shall make available information setting forth, in particular:

   (a) the location of Antarctic Treaty Specially Protected Areas and Antarctic Specially Managed Areas;

   (b) listing and maps of those Areas;

   (c) the Management Plans, including listings of prohibitions relevant to each Area;

   (d) the location of Historic Sites and Monuments and any relevant prohibition or restriction.

2. Each Party shall ensure that the location and, if possible, the limits of Antarctic Specially Protected Areas, Antarctic Specially Managed Areas and Historic Sites and Monuments are shown on its topographic maps, hydrographic charts and in other relevant publications.

3. Parties shall co-operate to ensure that, where appropriate, the boundaries of Antarctic Specially Protected Areas, Antarctic Specially Managed Areas and Historic Sites and Monuments are suitably marked on the site.

ARTICLE 10

EXCHANGE OF INFORMATION

1. The Parties shall make arrangements for:

   (a) collecting and exchanging records, including records of permits and reports of visits, including inspection visits, to Antarctic Specially Protected Areas and reports of inspection visits to Antarctic Specially Managed Areas;

   (b) obtaining and exchanging information on any significant change or damage to any Antarctic Specially Managed Area, Antarctic Specially Protected Area or Historic Site or Monument; and

   (c) establishing common forms in which records and information shall be submitted by Parties in accordance with paragraph 2 below.

2. Each Party shall inform the other Parties and the Committee before the end of November of each year of the number and nature of permits issued under this Annex in the preceding period of 1st July to 30th June.

3. Each Party conducting, funding or authorising research or other activities in Antarctic Specially Protected Areas or Antarctic Specially Managed Areas shall maintain a record of such activities and in the annual exchange of information in accordance with the Antarctic Treaty shall provide summary descriptions of the activities conducted by persons subject to its jurisdiction in such areas in the preceding year.

4. Each Party shall inform the other Parties and the Committee before the end of November each year of measures it has taken to implement this Annex, including any site inspections and any steps it has taken to address instances of activities in contravention of the provisions of the approved Managed Plan for an Antarctic Specially Protected Area or Antarctic Specially Managed Area.

ARTICLE 11

CASES OF EMERGENCY

1. The restrictions laid down and authorised by this Annex shall not apply in cases of emergency involving safety of human life or of ships, aircraft, or equipment and facilities of high value or the protection of the environment.

2. Notice of activities undertaken in cases of emergency shall be circulated immediately to all Parties and to the Committee.

ARTICLE 12

AMENDMENT OR MODIFICATION

1. This Annex may be amended or modified by a measure adopted in accordance with Article IX(1) of the Antarctic Treaty. Unless the measure specifies otherwise, the amendment or modification shall be deemed to have been approved, and shall become effective, one year after the close of the Antarctic Treaty Consultative Meeting at which it was adopted, unless one or more of the Antarctic Treaty Consultative Parties notifies the Depositary, within that time period, that it wishes an extension of that period or that it is unable to approve the measure.

2. Any amendment or modification of this Annex which becomes effective in accordance with paragraph 1 above shall thereafter become effective as to any other Party when notice of approval by it has been received by the Depositary.

Convention for the Conservation of Antarctic Seals, London, 1972

Done at London 1 June 1972

Entered into force 11 March 1978

Depositary: United Kingdom

Primary source citation: 29 UST 441, TIAS 8826

CONVENTION FOR THE CONSERVATION OF ANTARCTIC SEALS

The Contracting Parties,

Recalling the Agreed Measures for the Conservation of Antarctic Fauna and Flora, adopted under the Antarctic Treaty signed at Washington on 1 December 1959;

Recognizing the general concern about the vulnerability of Antarctic seals to commercial exploitation and the consequent need for effective conservation measures;

Recognizing that the stocks of Antarctic seals are an important living resource in the marine environment which requires an international agreement for its effective conservation;

Recognizing that this resource should not be depleted by over-exploitation, and hence that any harvesting should be regulated so as not to exceed the levels of the optimum sustainable yield;

Recognizing that in order to improve scientific knowledge and so place exploitation on a rational basis, every effort should be made both to encourage biological and other research on Antarctic seal populations and to gain information from such research and from the statistics of future sealing operations, so that further suitable regulations may be formulated;

Noting that the Scientific Committee on Antarctic Research of the International Council of Scientific Unions (SCAR) is willing to carry out the tasks requested of it in this Convention;

Desiring to promote and achieve the objectives of protection, scientific study and rational use of Antarctic seals, and to maintain a satisfactory balance within the ecological system,

Have agreed as follows:

ARTICLE 1

Scope

(1) This Convention applies to the seas south of 60° South Latitude, in respect of which the Contracting Parties affirm the provisions of Article IV of the Antarctic Treaty.

(2) This Convention may be applicable to any or all of the following species:

Southern elephant seal *Mirounga leonina,*
Leopard seal *Hydrurga leptonyx,*
Weddell seal *Leptonychotes weddelli,*
Crabeater seal *Lobodon carcinophagus,*
Ross seal *Ommatophoca rossi,*
Southern fur seals *Arctocephalus* sp.

(3) The Annex to this Convention forms an integral part thereof.

ARTICLE 2

Implementation

(1) The Contracting Parties agree that the species of seals enumerated in Article 1 shall not be killed or captured within the Convention area by their nationals or vessels under their respective flags except in accordance with the provisions of this Convention.

(2) Each Contracting Party shall adopt for its nationals and for vessels under its flag such laws, regulations and other measures, including a permit system as appropriate, as may be necessary to implement this Convention.

ARTICLE 3

Annexed Measures

(1) This Convention includes an Annex specifying measures which the Contracting Parties hereby adopt. Contracting Parties may from time to time in the future adopt other measures with respect to the conservation, scientific study and rational and humane use of seal resources, prescribing *inter alia:*

(*a*) permissible catch;

(*b*) protected and unprotected species;

(*c*) open and closed seasons;

(*d*) open and closed areas, including the designation of reserves;

(*e*) the designation of special areas where there shall be no disturbance of seals;

(*f*) limits relating to sex, size, or age for each species;

(*g*) restrictions relating to time of day and duration, limitations of effort and methods of sealing;

(*h*) types and specifications of gear and apparatus and appliances which may be used;

(*i*) catch returns and other statistical and biological records;

(*j*) procedures for facilitating the review and assessment of scientific information;

(*k*) other regulatory measures including an effective system of inspection.

(2) The measures adopted under paragraph (1) of this Article shall be based upon the best scientific and technical evidence available.

(3) The Annex may from time to time be amended in accordance with the procedures provided for in Article 9.

ARTICLE 4

Special Permits

(1) Notwithstanding the provisions of this Convention, any Contracting Party may issue permits to kill or capture seals in limited quantities and in conformity with the objectives and principles of this Convention for the following purposes:

(*a*) to provide indispensable food for men or dogs;

(*b*) to provide or scientific research; or

(*c*) to provide specimens for museums, educational or cultural institutions.

(2) Each Contracting Party shall, as soon as possible, inform the other Contracting Parties and SCAR of the purpose and content of all permits issued under paragraph (1) of this Article and subsequently of the numbers of seals killed or captured under these permits.

ARTICLE 5

Exchange of Information and Scientific Advice

(1) Each Contracting Party shall provide to the other Contracting Parties and to SCAR the information specified in the Annex within the period indicated therein.

(2) Each Contracting Party shall also provide to the other Contracting Parties and to SCAR before 31 October each year information on any steps it has taken in accordance with Article 2 of this Convention during the preceding period 1 July to 30 June.

(3) Contracting Parties which have no information to report under the two preceding paragraphs shall indicate this formally before 31 October each year.

(4) SCAR is invited:

(*a*) to assess information received pursuant to this Article; encourage exchange of scientific data and information among the Contracting Parties; recommend programmes for scientific research; recommend statistical and biological data to be collected by sealing expeditions within the Convention area; and suggest amendments to the Annex; and

(*b*) to report on the basis of the statistical, biological and other evidence available when the harvest of any species of seal in the Convention area is having a significantly harmful effect on the total stocks of such species or on the ecological system in any particular locality.

(5) SCAR is invited to notify the Depositary which shall report to the Contracting Parties when SCAR estimates in any sealing season that the permissible catch limits for any species are likely to be exceeded and, in that case, to provide an estimate of the date upon which the permissible catch limits will be reached. Each Contracting Party shall then take appropriate measures to prevent its nationals and vessels under its flag from killing or capturing seals of that species after the estimated date until the Contracting Parties decide otherwise.

(6) SCAR may if necessary seek the technical assistance of the Food and Agriculture Organization of the United Nations in making its assessments.

(7) Notwithstanding the provisions of paragraph (1) of Article 1 the Contracting Parties shall, in accordance with their internal law, report to each other and to SCAR, for consideration, statistics relating to the Antarctic seals listed in paragraph (2) of Article 1 which have been killed or captured by their nationals and vessels under their respective flags in the area of floating sea ice north of 60° South Latitude.

ARTICLE 6

Consultations between Contracting Parties

(1) At any time after commercial sealing has begun a Contracting Party may propose through the Depositary that a meeting of Contracting Parties be convened with a view to:

(*a*) establishing by a two-thirds majority of the Contracting Parties, including the concurring votes of all States signatory to this Convention present at the meeting, an effective system of control, including inspection, over the implementation of the provisions of this Convention;

(*b*) establishing a commission to perform such functions under this Convention as the Contracting Parties may deem necessary; or

(*c*) considering other proposals, including:

(i) the provision of independent scientific advice;

(ii) the establishment, by a two-thirds majority, of a scientific advisory committee which may be assigned some or all of the functions requested of SCAR under this Convention, if commercial sealing reaches significant proportions;

(iii) the carrying out of scientific programmes with the participation of the Contracting Parties; and

(iv) the provision of further regulatory measures, including moratoria.

(2) If one-third of the Contracting Parties indicate agreement the Depositary shall convene such a meeting, as soon as possible.

(3) A meeting shall be held at the request of any Contracting Party, if SCAR reports that the harvest of any species of Antarctic seal in the area to which this Convention applies is having a significantly harmful effect on the total stocks or the ecological system in any particular locality.

ARTICLE 7

Review of Operations

The Contracting Parties shall meet within five years after the entry into force of this Convention and at least every five years thereafter to review the operation of the Convention.

ARTICLE 8

Amendments to the Convention

(1) This Convention may be amended at any time. The text of any amendment proposed by a Contracting Party shall be submitted to the Depositary, which shall transmit it to all the Contracting Parties.

(2) If one-third of the Contracting Parties request a meeting to discuss the proposed amendment the Depositary shall call such a meeting.

(3) An amendment shall enter into force when the Depositary has received instruments of ratification or acceptance thereof from all the Contracting Parties.

ARTICLE 9

Amendments to the Annex

(1) Any Contracting Party may propose amendments to the Annex to this Convention. The text of any such proposed amendment shall be submitted to the Depositary which shall transmit it to all Contracting Parties.

(2) Each such proposed amendment shall become effective for all Contracting Parties six months after the date appearing on the notification from the Depositary to the Contracting Parties, if within 120 days of the notification date, no objection has been received and two-thirds of the Contracting Parties have notified the Depositary in writing of their approval.

(3) If an objection is received from any Contracting Party within 120 days of the notification date, the matter shall be considered by the Contracting Parties at their next meeting. If unanimity on the matter is not reached at the meeting, the Contracting Parties shall notify the Depositary within 120 days from the date of closure of the meeting of their approval or rejection of the original amendment or of any new amendment proposed by the meeting. If, by the end of this period, two-thirds of the Contracting Parties have approved such amendment, it shall become effective six months from the date of the closure of the meeting for those Contracting Parties which have by then notified their approval.

(4) Any Contracting Party which has objected to a proposed amendment may at any time withdraw that objection, and the proposed amendment shall become effective with respect to such Party immediately if the amendment is already in effect, or at such time as it becomes effective under the terms of this Article.

(5) The Depositary shall notify each Contracting Party immediately upon receipt of each approval or objection, of each withdrawal of objection, and of the entry into force of any amendment.

(6) Any State which becomes a party to this Convention after an amendment to the Annex has entered into force shall be bound by the Annex as so amended. Any State which becomes a Party to this Convention during the period when a proposed amendment is pending may approve or object to such an amendment within the time limits applicable to other Contracting Parties.

ARTICLE 10

Signature

This Convention shall be open for signature at London from 1 June to 31 December 1972 by States participating in the Conference on the Conservation of Antarctic Seals held at London from 3 to 11 February 1972.

ARTICLE 11

Ratification

This Convention is subject to ratification or acceptance. Instruments of ratification or acceptance shall be deposited with the Government of the United Kingdom of Great Britain and Northern Ireland, hereby designated as the Depositary.

ARTICLE 12

Accession

This Convention shall be open for accession by any State which may be invited to accede to this Convention with the consent of the Contracting Parties.

ARTICLE 13

Entry into Force

(1) This Convention shall enter into force on the thirtieth day following the date of deposit of the seventh instrument of ratification or acceptance.

(2) Thereafter this Convention shall enter into force for each ratifying, accepting or acceding State on the thirtieth day after deposit by such State of its instrument of ratification, acceptance or accession.

ARTICLE 14

Withdrawal

Any Contracting Party may withdraw from this Convention on 30 June of any year by giving notice on or before 1 January of the same year to the Depositary, which upon receipt of such a notice shall at once communicate it to the other Contracting Parties. Any other Contracting Party may, in like manner, within one month of the receipt of a copy of such a notice from the Depositary, give notice of withdrawal, so that the Convention shall cease to be in force on 30 June of the same year with respect to the Contracting Party giving such notice.

ARTICLE 15

Notifications by the Depositary

The Depositary shall notify all signatory and acceding States of the following:

(*a*) signatures of this Convention, the deposit of instruments of ratification, acceptance or accession and notices of withdrawal;

(*b*) the date of entry into force of this Convention and of any amendments to it or its Annex.

ARTICLE 16

Certified Copies and Registration

(1) This Convention, done in the English, French, Russian and Spanish languages, each version being equally authentic, shall be deposited in the archives of the Government of the United Kingdom of Great Britain and Northern Ireland, which shall transmit duly certified copies thereof to all signatory and acceding States.

(2) This Convention shall be registered by the Depositary pursuant to Article 102 of the Charter of the United Nations.

IN WITNESS WHEREOF, the undersigned, duly authorized, have signed this Convention.

DONE at London, this 1st day of June 1972.

ANNEX

1. Permissible Catch

The Contracting Parties shall in any one year, which shall run from 1 July to 30 June inclusive, restrict the total number of seals of each species killed or captured to the numbers specified below. These numbers are subject to review in the light of scientific assessments:

(*a*) in the case of Crabeater seals *Lobodon carcinophagus,* 175,000;

(*b*) in the case of Leopard seals *Hydrurga leptonyx,* 12,000;

(*c*) in the case of Weddell seals *Leptonychotes weddelli,* 5,000.

2. Protected Species

(*a*) It is forbidden to kill or capture Ross seals *Ommatophoca rossi,* Southern elephant seals *Mirounga leonina,* or fur seals of the genus *Arctocephalus.*

(*b*) In order to protect the adult breeding stock during the period when it is most concentrated and vulnerable, it is forbidden to kill or capture any Weddell seal *Leptonychotes weddelli* one year old or older between 1 September and 31 January inclusive.

3. Closed Season and Sealing Season

The period between 1 March and 31 August inclusive is a Closed Season, during which the killing or capturing of seals is forbidden. The period 1 September to the last day in February constitutes a Sealing Season.

4. Sealing Zones

Each of the sealing zones listed in this paragraph shall be closed in numerical sequence to all sealing operations for the seal species listed in paragraph 1 of this Annex for the period 1 September to the last day of February inclusive. Such closures shall begin with the same zone as is closed under paragraph 2 of Annex B to Annex 1 of the Report of the Fifth Antarctic Treaty Consultative Meeting at the moment the Convention enters into force. Upon the expiration of each closed period, the affected zone shall reopen:

Zone 1—between 60° and 120° West Longitude
Zone 2—between 0° and 60° West Longitude, together with that part of the Weddell Sea lying westward of 60° West Longitude
Zone 3—between 0° and 70° East Longitude
Zone 4—between 70° and 130° East Longitude
Zone 5—between 130° East Longitude and 170° West Longitude
Zone 6—between 120° and 170° West Longitude.

5. Seal Reserves

It is forbidden to kill or capture seals in the following reserves, which are seal breeding areas or the site of long-term scientific research:

(*a*) The area around the South Orkney Islands between 60°20′ and 60°56′ South Latitude and 44° 05′ and 46°25′ West Longitude.

(*b*) The area of the southwestern Ross Sea south of 76° South Latitude and west of 170° East Longitude.

(*c*) The area of Edisto Inlet south and west of a line drawn between Cape Hallett at 72° 19′ South Latitude, 170° 18′ East Longitude, and Helm Point, at 72° 11′ South Latitude, 170° 00′ East Longitude.

6. *Exchange of Information*

(*a*) Contracting Parties shall provide before 31 October each year to other Contracting Parties and to SCAR a summary of statistical information on all seals killed or captured by their nationals and vessels under their respective flags in the Convention area, in respect of the preceding period 1 July to 30 June. This information shall include by zones and months:

(i) The gross and nett tonnage, brake horse-power, number of crew, and number of days' operation of vessels under the flag of the Contracting Party;

(ii) The number of adult individuals and pups of each species taken.

When specially requested, this information shall be provided in respect of each ship, together with its daily position at noon each operating day and the catch on that day.

(*b*) When an industry has started, reports of the number of seals of each species killed or captured in each zone shall be made to SCAR in the form and at the intervals (not shorter than one week) requested by that body.

(*c*) Contracting parties shall provide to SCAR biological information, in particular:

(i) Sex

(ii) Reproductive condition

(iii) Age

SCAR may request additional information or material with the approval of the Contracting Parties.

(*d*) Contracting Parties shall provide to other Contracting Parties and to SCAR at least 30 days in advance of departure from their home ports, information on proposed sealing expeditions.

7. *Sealing Methods*

(*a*) SCAR is invited to report on methods of sealing and to make recommendations with a view to ensuring that the killing or capturing of seals is quick, painless and efficient. Contracting Parties, as appropriate, shall adopt rules for their nationals and vessels under their respective flags engaged in the killing and capturing of seals, giving due consideration to the views of SCAR.

(*b*) In the light of the available scientific and technical data, Contracting Parties agree to take appropriate steps to ensure that their nationals and vessels under their respective flags refrain from killing or capturing seals in the water, except in limited quantities to provide for scientific research in conformity with the objectives and principles of this Convention. Such research shall include studies as to the effectiveness of methods of sealing from the viewpoint of the management and humane and rational utilization of the Antarctic seal resources for conservation purposes. The undertaking and the results of any such scientific research programme shall be communicated to SCAR and the Depositary which shall transmit them to the Contracting Parties.

Amendment to the Convention for the Conservation of Antarctic Seals, London, 1988

Done at London 16 September 1988

Entered into force 27 March 1990

Primary source citation: Copy of text provided by the U.S. Department of State

NOTE NO: ALZ 264/4

The Foreign and Commonwealth Office present their compliments to Their Excellencies Mesdames and Messieurs, the Heads of Diplomatic Missions of the Contracting Parties to the Convention for the Conservation of Antarctic Seals and have the honour to transmit herewith 10 copies of the Report of the 1988 Meeting to Review the Operation of the Convention.

The Report contains recommended proposals for the amendment of the Annex to the Convention. In paragraph 40 of the Report, the Meeting requested the Depositary to transmit the Recommendations contained in paragraphs 21, 31 and 36 of the Report to all Contracting Parties in accordance with Article 9(1) of the Convention. The texts of these paragraphs are set out below in their English language version. The texts in other official languages are set out in the Report.

"21. Representatives, pursuant to paragraph 19(a) above, agreed to recommend for approval by their respective Governments, that the Annex be changed in the following way:

Section 1: for 1 July to 30 June read 1 March to the last day in February.

Section 6(a): for 31 October read 30 June and for 1 July to 30 June read 1 March to the last day in February."

"31. Accordingly, they agreed on the text of the following amendment to the Annex (new paragraph 8) which they recommended to the Governments of Contracting Parties for their approval.

"8: Cooperation
The Contracting Parties to this Convention shall, as appropriate, cooperate and exchange information with the Contracting Parties to the other international instruments within the Antarctic Treaty System and their respective institutions." "

"36. Representatives, noting that they agreed on the desirability of extending the protection afforded to Weddell seals to include pups during the breeding season, agreed to recommend to Governments the deletion in section 2 of the Annex of the words "one year old or older"."

The Foreign and Commonwealth Office request that these Recommendations be drawn to the attention of your authorities. At the same time the Foreign and Commonwealth Office wish to recall that, in accordance with Article 9(2) of the Convention, "each such proposed amendment shall become effective for all Contracting Parties six months after the date appearing on the notification from the Depositary to the Contracting Parties, if within 120 days of the

notification date, no objection has been received and two-thirds of the Contracting Parties have notified the Depositary in writing of their approval." The Foreign and Commonwealth Office would, therefore, be grateful for a response in due course.

The Foreign and Commonwealth Office avail themselves of this opportunity to renew to Their Excellencies Mesdames and Messieurs, the Heads of Diplomatic Missions of the Contracting Parties to the Convention for the Conservation of Antarctic Seals the assurance of their highest consideration.

[Initials]
[Seal]

POLAR REGIONS SECTION
SOUTH AMERICA DEPARTMENT
FOREIGN AND COMMONWEALTH OFFICE
LONDON SW1A 2AH

27 SEPTEMBER 1989

Convention on the Conservation of Antarctic Marine Living Resources, Canberra, 1980

Done at Canberra 20 May 1980

Entered into force 7 April 1982

Depositary: Australia

Primary source citation: 33 UST 3476, TIAS 10240

CONVENTION ON THE CONSERVATION OF ANTARCTIC MARINE LIVING RESOURCES

The Contracting Parties,

RECOGNISING the importance of safeguarding the environment and protecting the integrity of the ecosystem of the seas surrounding Antarctica;

NOTING the concentration of marine living resources found in Antarctic waters and the increased interest in the possibilities offered by the utilization of these resources as a source of protein;

CONSCIOUS of the urgency of ensuring the conservation of Antarctic marine living resources;

CONSIDERING that it is essential to increase knowledge of the Antarctic marine ecosystem and its components so as to be able to base decisions on harvesting on sound scientific information;

BELIEVING that the conservation of Antarctic marine living resources calls for international co-operation with due regard for the provisions of the Antarctic Treaty and with the active involvement of all States engaged in research or harvesting activities in Antarctic waters;

RECOGNISING the prime responsibilities of the Antarctic Treaty Consultative Parties for the protection and preservation of the Antarctic environment and, in particular, their responsibilities under Article IX, paragraph 1 (f) of the Antarctic Treaty in respect of the preservation and conservation of living resources in Antarctica;

RECALLING the action already taken by the Antarctic Treaty Consultative Parties including in particular the Agreed Measures for the Conservation of Antarctic Fauna and Flora, as well as the provisions of the Convention for the Conservation of Antarctic Seals;

BEARING in mind the concern regarding the conservation of Antarctic marine living resources expressed by the Consultative Parties at the Ninth Consultative Meeting of the Antarctic Treaty and the importance of the provisions of Recommendation IX-2 which led to the establishment of the present Convention;

BELIEVING that it is in the interest of all mankind to preserve the waters surrounding the Antarctic continent for peaceful purposes only and to prevent their becoming the scene or object of international discord;

RECOGNISING, in the light of the foregoing, that it is desirable to establish suitable machinery for recommending, promoting, deciding upon and co-ordinating the measures and scientific studies needed to ensure the conservation of Antarctic marine living organisms;

HAVE AGREED as follows:

ARTICLE I

1. This Convention applies to the Antarctic marine living resources of the area south of 60° South latitude and to the Antarctic marine living resources of the area between that latitude and the Antarctic Convergence which form part of the Antarctic marine ecosystem.

2. Antarctic marine living resources means the populations of fin fish, molluscs, crustaceans and all other species of living organisms, including birds, found south of the Antarctic Convergence.

3. The Antarctic marine ecosystem means the complex of relationships of Antarctic marine living resources with each other and with their physical environment.

4. The Antarctic Convergence shall be deemed to be a line joining the following points along parallels of latitude and meridians of longitude:

   50°S, 0°; 50°S, 30°E; 45°S, 30°E; 45°S, 80°E; 55°S, 80°E; 55°S, 150°E; 60°S, 150°E; 60°S, 50°W; 50°S, 50°W; 50°S, 0°.

ARTICLE II

1. The objective of this Convention is the conservation of Antarctic marine living resources.

2. For the purposes of this Convention, the term "conservation" includes rational use.

3. Any harvesting and associated activities in the area to which this Convention applies shall be conducted in accordance with the provisions of this Convention and with the following principles of conservation:

   (a) prevention of decrease in the size of any harvested population to levels below those which ensure its stable recruitment. For this purpose its size should not be allowed to fall below a level close to that which ensures the greatest net annual increment;

   (b) maintenance of the ecological relationships between harvested, dependent and related populations of Antarctic marine living resources and the restoration of depleted populations to the levels defined in sub-paragraph (a) above;

   and

   (c) prevention of changes or minimization of the risk of changes in the marine ecosystem which are not potentially reversible over two or three decades, taking into account the state of available knowledge of the direct and indirect impact of harvesting, the effect of the introduction of alien species, the effects of associated activities on the marine ecosystem and of the effects of environmental changes, with the aim of making possible the sustained conservation of Antarctic marine living resources.

ARTICLE III

The Contracting Parties, whether or not they are Parties to the Antarctic Treaty, agree that they will not engage in any activities in the Antarctic Treaty area contrary to the principles and purposes of that Treaty and that, in their relations with each other, they are bound by the obligations contained in Articles I and V of the Antarctic Treaty.

ARTICLE IV

1. With respect to the Antarctic Treaty area, all Contracting parties, whether or not they are Parties to the Antarctic Treaty, are bound by Articles IV and VI of the Antarctic Treaty in their relations with each other.

2. Nothing in this Convention and no acts or activities taking place while the present Convention is in force shall:

   (a) constitute a basis for asserting, supporting or denying a claim to territorial sovereignty in the Antarctic Treaty area or create any rights of sovereignty in the Antarctic Treaty area;

   (b) be interpreted as a renunciation or diminution by any Contracting Party of, or as prejudicing, any right or claim or basis of claim to exercise coastal state jurisdiction under international law within the area to which this Convention applies;

   (c) be interpreted as prejudicing the position of any Contracting Party as regards its recognition or non-recognition of any such right, claim or basis of claim;

   (d) affect the provision of Article IV, paragraph 2, of the Antarctic Treaty that no new claim, or enlargement of an existing claim, to territorial sovereignty in Antarctica shall be asserted while the Antarctic Treaty is in force.

ARTICLE V

1. The Contracting Parties which are not Parties to the Antarctic Treaty acknowledge the special obligations and responsibilities of the Antarctic Treaty Consultative Parties for the protection and preservation of the environment of the Antarctic Treaty area.

2. The Contracting Parties which are not Parties to the Antarctic Treaty agree that, in their activities in the Antarctic Treaty area, they will observe as and when appropriate the Agreed Measures for the Conservation of Antarctic Fauna and Flora and such other measures as have been recommended by the Antarctic Treaty Consultative Parties in fulfilment of their responsibility for the protection of the Antarctic environment from all forms of harmful human interference.

3. For the purposes of this Convention, "Antarctic Treaty Consultative Parties" means the Contracting Parties to the Antarctic Treaty whose Representatives participate in meetings under Article IX of the Antarctic Treaty.

ARTICLE VI

Nothing in this Convention shall derogate from the rights and obligations of Contracting Parties under the International Convention for the Regulation of Whaling and the Convention for the Conservation of Antarctic Seals.

ARTICLE VII

1. The Contracting Parties hereby establish and agree to maintain the Commission for the Conservation of Antarctic Marine Living Resources (hereinafter referred to as "the Commission").

2. Membership in the Commission shall be as follows:

   (a) each Contracting Party which participated in the meeting at which this Convention was adopted shall be a Member of the Commission;

   (b) each State Party which has acceded to this Convention pursuant to Article XXIX shall be entitled to be a Member of the Commission during such time as that acceding Party is engaged in research or harvesting activities in relation to the marine living resources to which this Convention applies;

   (c) each regional economic integration organization which has acceded to this Convention pursuant to Article XXIX shall be entitled to be a Member of the Commission during such time as its States members are so entitled;

   (d) a Contracting Party seeking to participate in the work of the Commission pursuant to sub-paragraphs (b) and (c) above shall notify the Depositary of the basis upon which it seeks to become a Member of the Commission and of its willingness to accept conservation measures in force. The Depositary shall communicate to each Member of the Commission such notification and accompanying information. Within two months of receipt of such communication from the Depositary, any Member of the Commission may request that a special meeting of the Commission be held to consider the matter. Upon receipt of such request, the Depositary shall call such a meeting. If there is no request for a meeting, the Contracting Party submitting the notification shall be deemed to have satisfied the requirements for Commission Membership.

3. Each Member of the Commission shall be represented by one representative who may be accompanied by alternate representatives and advisers.

ARTICLE VIII

The Commission shall have legal personality and shall enjoy in the territory of each of the States Parties such legal capacity as may be necessary to perform its function and achieve the purposes of this Convention. The privileges and immunities to be enjoyed by the Commission and its staff in the territory of a State Party shall be determined by agreement between the Commission and the State Party concerned.

ARTICLE IX

1. The function of the Commission shall be to give effect to the objective and principles set out in Article II of this Convention. To this end, it shall:

   (a) facilitate research into and comprehensive studies of Antarctic marine living resources and of the Antarctic marine ecosystem;

   (b) compile data on the status of and changes in population of Antarctic marine living resources and on factors affecting the distribution, abundance and productivity of harvested species and dependent or related species or populations;

   (c) ensure the acquisition of catch and effort statistics on harvested populations;

   (d) analyse, disseminate and publish the information referred to in sub-paragraphs (b) and (c) above and the reports of the Scientific Committee;

(e) identify conservation needs and analyse the effectiveness of conservation measures;

(f) formulate, adopt and revise conservation measures on the basis of the best scientific evidence available, subject to the provisions of paragraph 5 of this Article;

(g) implement the system of observation and inspection established under Article XXIV of this Convention;

(h) carry out such other activities as are necessary to fulfil the objective of this Convention.

2. The conservation measures referred to in paragraph 1 (f) above include the following:

(a) the designation of the quantity of any species which may be harvested in the area to which this Convention applies;

(b) the designation of regions and sub-regions based on the distribution of populations of Antarctic marine living resources;

(c) the designation of the quantity which may be harvested from the populations of regions and sub-regions;

(d) the designation of protected species;

(e) the designation of the size, age and, as appropriate, sex of species which may be harvested;

(f) the designation of open and closed seasons for harvesting;

(g) the designation of the opening and closing of areas, regions or sub-regions for purposes of scientific study or conservation, including special areas for protection and scientific study;

(h) regulation of the effort employed and methods of harvesting, including fishing gear, with a view, inter alia, to avoiding undue concentration of harvesting in any region or sub-region,

(i) the taking of such other conservation measures as the Commission considers necessary for the fulfilment of the objective of this Convention, including measures concerning the effects of harvesting and associated activities on components of the marine ecosystem other than the harvested populations.

3. The Commission shall publish and maintain a record of all conservation measures in force.

4. In exercising its functions under paragraph 1 above, the Commission shall take full account of the recommendations and advice of the Scientific Committee.

5. The Commission shall take full account of any relevant measures or regulations established or recommended by the Consultative Meetings pursuant to Article IX of the Antarctic Treaty or by existing fisheries commissions responsible for species which may enter the area to which this Convention applies, in order that there shall be no inconsistency between the rights and obligations of a Contracting Party under such regulations or measures and conservation measures which may be adopted by the Commission.

6. Conservation measures adopted by the Commission in accordance with this Convention shall be implemented by Members of the Commission in the following manner:

(a) the Commission shall notify conservation measures to all Members of the Commission;

(b) conservation measures shall become binding upon all Members of the Commission 180 days after such notification, except as provided in sub-paragraphs (c) and (d) below;

(c) if a Member of the Commission, within ninety days following the notification specified in sub-paragraph (a), notifies the Commission that it is unable to accept the conservation measure,

in whole or in part, the measure shall not, to the extent stated, be binding upon that Member of the Commission;

(d) in the event that any Member of the Commission invokes the procedure set forth in sub-paragraph (c) above, the Commission shall meet at the request of any Member of the Commission to review the conservation measure. At the time of such meeting and within thirty days following the meeting, any Member of the Commission shall have the right to declare that it is no longer able to accept the conservation measure, in which case the Member shall no longer be bound by such measure.

ARTICLE X

1. The Commission shall draw the attention of any State which is not a Party to this Convention to any activity undertaken by its nationals or vessels which, in the opinion of the Commission, affects the implementation of the objective of this Convention.

2. The Commission shall draw the attention of all Contracting Parties to any activity which, in the opinion of the Commission, affects the implementation by a Contracting Party of the objective of this Convention or the compliance by that Contracting Party with its obligations under this Convention.

ARTICLE XI

The Commission shall seek to co-operate with Contracting Parties which may exercise jurisdiction in marine areas adjacent to the area to which this Convention applies in respect of the conservation of any stock or stocks of associated species which occur both within those areas and the area to which this Convention applies, with a view to harmonizing the conservation measures adopted in respect of such stocks.

ARTICLE XII

1. Decisions of the Commission on matters of substance shall be taken by consensus. The question of whether a matter is one of substance shall be treated as a matter of substance.

2. Decisions on matters other than those referred to in paragraph 1 above shall be taken by a simple majority of the Members of the Commission present and voting.

3. In Commission consideration of any item requiring a decision, it shall be made clear whether a regional economic integration organization will participate in the taking of the decision and, if so, whether any of its member States will also participate. The number of Contracting Parties so participating shall not exceed the number of member States of the regional economic integration organization which are Members of the Commission.

4. In the taking of decisions pursuant to this Article, a regional economic integration organization shall have only one vote.

ARTICLE XIII

1. The headquarters of the Commission shall be established at Hobart, Tasmania, Australia.

2. The Commission shall hold a regular annual meeting. Other meetings shall also be held at the request of one-third of its members and as otherwise provided in this Convention. The first meeting of the Commission shall be held within three months of the entry into force of this Convention, provided that among the Contracting Parties there are at least two States conducting harvesting activities within the

area to which this Convention applies. The first meeting shall, in any event, be held within one year of the entry into force of this Convention. The Depositary shall consult with the signatory States regarding the first Commission meeting, taking into account that a broad representation of such States is necessary for the effective operation of the Commission.

3. The Depositary shall convene the first meeting of the Commission at the headquarters of the Commission. Thereafter, meetings of the Commission shall be held at its headquarters, unless it decides otherwise.

4. The Commission shall elect from among its members a Chairman and Vice-Chairman, each of whom shall serve for a term of two years and shall be eligible for re-election for one additional term. The first Chairman shall, however, be elected for an initial term of three years. The Chairman and Vice-Chairman shall not be representatives of the same Contracting Party.

5. The Commission shall adopt and amend as necessary the rules of procedure for the conduct of its meetings, except with respect to the matters dealt with in Article XII of this Convention.

6. The Commission may establish such subsidiary bodies as are necessary for the performance of its functions.

ARTICLE XIV

1. The Contracting Parties hereby establish the Scientific Committee for the Conservation of Antarctic Marine Living Resources (hereinafter referred to as "the Scientific Committee") which shall be a consultative body to the Commission. The Scientific Committee shall normally meet at the headquarters of the Commission unless the Scientific Committee decides otherwise.

2. Each Member of the Commission shall be a member of the Scientific Committee and shall appoint a representative with suitable scientific qualifications who may be accompanied by other experts and advisers.

3. The Scientific Committee may seek the advice of other scientists and experts as may be required on an ad hoc basis.

ARTICLE XV

1. The Scientific Committee shall provide a forum for consultation and co-operation concerning the collection, study and exchange of information with respect to the marine living resources to which this Convention applies. It shall encourage and promote co-operation in the field of scientific research in order to extend knowledge of the marine living resources of the Antarctic marine ecosystem.

2. The Scientific Committee shall conduct such activities as the Commission may direct in pursuance of the objective of this Convention and shall:

   (a) establish criteria and methods to be used for determinations concerning the conservation measures referred to in Article IX of this Convention;

   (b) regularly assess the status and trends of the populations of Antarctic marine living resources;

   (c) analyse data concerning the direct and indirect effects of harvesting on the populations of Antarctic marine living resources;

   (d) assess the effects of proposed changes in the methods or levels of harvesting and proposed conservation measures;

(e) transmit assessments, analyses, reports and recommendations to the Commission as requested or on its own initiative regarding measures and research to implement the objective of this Convention;

(f) formulate proposals for the conduct of international and national programs of research into Antarctic marine living resources.

3. In carrying out its functions, the Scientific Committee shall have regard to the work of other relevant technical and scientific organizations and to the scientific activities conducted within the framework of the Antarctic Treaty.

ARTICLE XVI

1. The first meeting of the Scientific Committee shall be held within three months of the first meeting of the Commission. The Scientific Committee shall meet thereafter as often as may be necessary to fulfil its functions.

2. The Scientific Committee shall adopt and amend as necessary its rules of procedure. The rules and any amendments thereto shall be approved by the Commission. The rules shall include procedures for the presentation of minority reports.

3. The Scientific Committee may establish, with the approval of the Commission, such subsidiary bodies as are necessary for the performance of its functions.

ARTICLE XVII

1. The Commission shall appoint an Executive Secretary to serve the Commission and Scientific Committee according to such procedures and on such terms and conditions as the Commission may determine. His term of office shall be for four years and he shall be eligible for reappointment.

2. The Commission shall authorize such staff establishment for the Secretariat as may be necessary and the Executive Secretary shall appoint, direct and supervise such staff according to such rules, and procedures and on such terms and conditions as the Commission may determine.

3. The Executive Secretary and Secretariat shall perform the functions entrusted to them by the Commission.

ARTICLE XVIII

The official languages of the Commission and of the Scientific Committee shall be English, French, Russian and Spanish.

ARTICLE XIX

1. At each annual meeting, the Commission shall adopt by consensus its budget and the budget of the Scientific Committee.

2. A draft budget for the Commission and the Scientific Committee and any subsidiary bodies shall be prepared by the Executive Secretary and submitted to the Members of the Commission at least sixty days before the annual meeting of the Commission.

3. Each Member of the Commission shall contribute to the budget. Until the expiration of five years after the entry into force of this Convention the contribution of each Member of the Commission shall be equal. Thereafter the contribution shall be determined in accordance with two criteria: the amount harvested and an equal sharing among all Members of the Commission. The Commission shall determine by consensus the proportion in which these two criteria shall apply.

4. The financial activities of the Commission and Scientific Committee shall be conducted in accordance with financial regulations adopted by the Commission and shall be subject to an annual audit by external auditors selected by the Commission.

5. Each Member of the Commission shall meet its own expenses arising from attendance at meetings of the Commission and of the Scientific Committee.

6. A Member of the Commission that fails to pay its contributions for two consecutive years shall not, during the period of its default, have the right to participate in the taking of decisions in the Commission.

ARTICLE XX

1. The Members of the Commission shall, to the greatest extent possible, provide annually to the Commission and to the Scientific Committee such statistical, biological and other data and information as the Commission and Scientific Committee may require in the exercise of their functions.

2. The Members of the Commission shall provide, in the manner and at such intervals as may be prescribed, information about their harvesting activities, including fishing areas and vessels, so as to enable reliable catch and effort statistics to be compiled.

3. The Members of the Commission shall provide to the Commission at such intervals as may be prescribed information on steps taken to implement the conservation measures adopted by the Commission.

4. The Members of the Commission agree that in any of their harvesting activities, advantage shall be taken of opportunities to collect data needed to assess the impact of harvesting.

ARTICLE XXI

1. Each Contracting Party shall take appropriate measures within its competence to ensure compliance with the provisions of this Convention and with conservation measures adopted by the Commission to which the party is bound in accordance with Article IX of this Convention.

2. Each Contracting Party shall transmit to the Commission information on measures taken pursuant to paragraph 1 above, including the imposition of sanctions for any violation.

ARTICLE XXII

1. Each Contracting Party undertakes to exert appropriate efforts, consistent with the Charter of the United Nations, to the end that no one engages in any activity contrary to the objective of this Convention.

2. Each Contracting Party shall notify the Commission of any such activity which comes to its attention.

ARTICLE XXIII

1. The Commission and the Scientific Committee shall co-operate with the Antarctic Treaty Consultative Parties on matters falling within the competence of the latter.

2. The Commission and the Scientific Committee shall co-operate, as appropriate, with the Food and Agriculture Organisation of the United Nations and with other Specialised Agencies.

3. The Commission and the Scientific Committee shall seek to develop co-operative working relationships, as appropriate, with inter-governmental and non-governmental organizations which could contribute to their work, including the Scientific Committee on Antarctic Research, the Scientific Committee on Oceanic Research and the International Whaling Commission.

4. The Commission may enter into agreements with the organizations referred to in this Article and with other organizations as may be appropriate. The Commission and the Scientific Committee may invite such organizations to send observers to their meetings and to meetings of their subsidiary bodies.

ARTICLE XXIV

1. In order to promote the objective and ensure observance of the provisions of this Convention, the Contracting Parties agree that a system of observation and inspection shall be established.

2. The system of observation and inspection shall be elaborated by the Commission on the basis of the following principles:

   (a) Contracting Parties shall co-operate with each other to ensure the effective implementation of the system of observation and inspection, taking account of the existing international practice. This system shall include, inter alia, procedures for boarding and inspection by observers and inspectors designated by the Members of the Commission and procedures for flag state prosecution and sanctions on the basis of evidence resulting from such boarding and inspections. A report of such prosecutions and sanctions imposed shall be included in the information referred to in Article XXI of this Convention;

   (b) in order to verify compliance with measures adopted under this Convention, observation and inspection shall be carried out on board vessels engaged in scientific research or harvesting of marine living resources in the area to which this Convention applies, through observers and inspectors designated by the Members of the Commission and operating under terms and conditions to be established by the Commission;

   (c) designated observers and inspectors shall remain subject to the jurisdiction of the Contracting Party of which they are nationals. They shall report to the Member of the Commission by which they have been designated which in turn shall report to the Commission.

3. Pending the establishment of the system of observation and inspection, the Members of the Commission shall seek to establish interim arrangements to designate observers and inspectors and such designated observers and inspectors shall be entitled to carry out inspections in accordance with the principles set out in paragraph 2 above.

ARTICLE XXV

1. If any dispute arises between two or more of the Contracting Parties concerning the interpretation or application of this Convention, those Contracting Parties shall consult among themselves with a view to having the dispute resolved by negotiation, inquiry, mediation, conciliation, arbitration, judicial settlement or other peaceful means of their own choice.

2. Any dispute of this character not so resolved shall, with the consent in each case of all Parties to the dispute, be referred for settlement to the International Court of Justice or to arbitration; but failure to reach agreement on reference to the International Court or to arbitration shall not absolve Parties to the dispute from the responsibility of continuing to seek to resolve it by any of the various peaceful means referred to in paragraph 1 above.

3. In cases where the dispute is referred to arbitration, the arbitral tribunal shall be constituted as provided in the Annex to this Convention.

ARTICLE XXVI

1. This Convention shall be open for signature at Canberra from 1 August to 31 December 1980 by the States participating in the Conference on the Conservation of Antarctic Marine Living Resources held at Canberra from 7 to 20 May 1980.

2. The States which so sign will be the original signatory States of the Convention.

ARTICLE XXVII

1. This Convention is subject to ratification, acceptance or approval by signatory States.

2. Instruments of ratification, acceptance or approval shall be deposited with the Government of Australia, hereby designated as the Depositary.

ARTICLE XXVIII

1. This Convention shall enter into force on the thirtieth day following the date of deposit of the eighth instrument of ratification, acceptance or approval by States referred to in paragraph 1 of Article XXVI of this Convention.

2. With respect to each State or regional economic integration organization which subsequent to the date of entry into force of this Convention deposits an instrument of ratification, acceptance, approval or accession, the Convention shall enter into force on the thirtieth day following such deposit.

ARTICLE XXIX

1. This Convention shall be open for secession by any State interested in research or harvesting activities in relation to the marine living resources to which this Convention applies.

2. This Convention shall be open for accession by regional economic integration organizations constituted by sovereign States which include among their members one or more States Members of the Commission and to which the States members of the organization have transferred, in whole or in part, competences with regard to the matters covered by this Convention. The accession of such regional economic integration organizations shall be the subject of consultations among Members of the Commission.

ARTICLE XXX

1. This Convention may be amended at any time.

2. If one-third of the Members of the Commission request a meeting to discuss a proposed amendment the Depositary shall call such a meeting.

3. An amendment shall enter into force when the Depositary has received instruments of ratification, acceptance or approval thereof from all the Members of the Commission.

4. Such amendment shall thereafter enter into force as to any other Contracting Party when notice of ratification, acceptance or approval by it has been received by the Depositary. Any such Contracting Party from which no such notice has been received within a period of one year from the date of entry into force of the amendment in accordance with paragraph 3 above shall be deemed to have withdrawn from this Convention.

ARTICLE XXXI

1. Any Contracting Party may withdraw from this Convention on 30 June of any year, by giving written notice not later than 1 January of the same year to the Depositary, which, upon receipt of such a notice, shall communicate it forthwith to the other Contracting Parties.

2. Any other Contracting Party may, within sixty days of the receipt of a copy of such a notice from the Depositary, give written notice of withdrawal to the Depositary in which case the Convention shall cease to be in force on 30 June of the same year with respect to the Contracting Party giving such notice.

3. Withdrawal from this Convention by any Member of the Commission shall not affect its financial obligations under this Convention.

ARTICLE XXXII

The Depositary shall notify all Contracting Parties of the following:

(a) signatures of this Convention and the deposit of instruments of ratification. acceptance, approval or accession;

(b) the date of entry into force of this Convention and of any amendment thereto.

ARTICLE XXXIII

1. This Convention, of which the English, French, Russian and Spanish texts are equally authentic, shall be deposited with the Government of Australia which shall transmit duly certified copies thereof to all signatory and acceding Parties.

2. This Convention shall be registered by the Depositary pursuant to Article 102 of the Charter of the United Nations.

Drawn up at Canberra this twentieth day of May 1980.

IN WITNESS WHEREOF the undersigned, being duly authorized, have signed this Convention.

ANNEX FOR AN ARBITRAL TRIBUNAL

1. The arbitral tribunal referred to in paragraph 3 of Article XXV shall be composed of three arbitrators who shall be appointed as follows:

a) The Party commencing proceedings shall communicate the name of an arbitrator to the other Party which, in turn, within a period of forty days following such notification, shall communicate the name of the second arbitrator. The Parties shall, within a period of sixty days following the appointment of the second arbitrator, appoint the third arbitrator, who shall not be a national of either Party and shall not be of the same nationality as either of the first two arbitrators. The third arbitrator shall preside over the tribunal.

b) If the second arbitrator has not been appointed within the prescribed period, or if the Parties have not reached agreement within the prescribed period on the appointment of the third arbitrator, that arbitrator shall be appointed, at the request of either Party, by the Secretary-General of the Permanent Court of Arbitration, from among persons of international standing not having the nationality of a State which is a Party to this Convention.

2. The arbitral tribunal shall decide where its headquarters will be located and shall adopt its own rules of procedure.

3. The award of the arbitral tribunal shall be made by a majority of its members, who may not abstain from voting.

4. Any Contracting Party which is not a Party to the dispute may intervene in the proceedings with the consent of the arbitral tribunal.

5. The award of the arbitral tribunal shall be final and binding on all Parties to the dispute and on any Party which intervenes in the proceedings and shall be complied with without delay. The arbitral tribunal shall interpret the award at the request of one of the Parties to the dispute or of any intervening Party.

6. Unless the arbitral tribunal determines otherwise because of the particular circumstances of the case, the expenses of the tribunal, including the remuneration of its members, shall be borne by the Parties to the dispute in equal shares.

Convention on the Regulation of Antarctic Mineral Resource Activities, Wellington, 1988

Done at Wellington 2 June 1988

Not in force

Depositary: New Zealand

Primary source citation: Copy of text provided by the U.S. Department of State

Convention on the Regulation of Antarctic Mineral Resource Activities

Preamble

The States Parties to this Convention, hereinafter referred to as the Parties,

Recalling the provisions of the Antarctic Treaty;

Convinced that the Antarctic Treaty system has proved effective in promoting international harmony in furtherance of the purpose and principles of the Charter of the United Nations, in ensuring the absence of any measures of a military nature and the protection of the Antarctic environment and in promoting freedom of scientific research in Antarctica;

Reaffirming that this is in the interest of all mankind that the Antarctic Treaty area shall continue forever to be used exclusively for peaceful purposes and shall not become the scene or object of international discord;

Noting the possibility that exploitable mineral resources may exist in the Antarctica;

Bearing in mind the special legal and political status of Antarctica and the special responsibility of the Antarctic Treaty Consultative Parties to ensure that all activities in Antarctica are consistent with the purposes and principles of the Antarctic Treaty;

Bearing in mind also that a regime for Antarctic mineral resources must be consistent with Article IV of the Antarctic Treaty and in accordance therewith be without prejudice and acceptable to those States which assert rights of or claims to territorial sovereignty in Antarctica, and those States which neither recognise nor assert a basis of claim to territorial sovereignty in Antarctica;

Noting the unique ecological, scientific and wilderness value of Antarctica and the importance of Antarctica to the global environment;

Recognising that Antarctic mineral resource activities could adversely affect the Antarctic environment or dependent or associated ecosystems;

Believing that the protection of the Antarctic environment and dependent and associated ecosystems must be a basic consideration in decisions taken on possible Antarctic mineral resource activities;

Concerned to ensure that Antarctic mineral resource activities, should they occur, are compatible with scientific investigation in Antarctica and other legitimate uses of Antarctica;

Believing that a regime governing Antarctic mineral resource activities will further strengthen the Antarctic Treaty system;

Convinced that participation in Antarctic mineral resource activities should be open to all States which have an interest in such activities and subscribe to a regime governing them and that the special situation of developing country Parties to the regime should be taken into account;

Believing that the effective regulation of Antarctic mineral resource activities is in the interest of the international community as a whole;

HAVE AGREED as follows:

CHAPTER I : GENERAL PROVISIONS

Article 1

Definitions

For the purposes of this Convention:

1 "Antarctic Treaty" means the Antarctic Treaty done at Washington on 1 December 1959.

2 "Antarctic Treaty Consultative Parties" means the Contracting Parties to the Antarctic Treaty entitled to appoint representatives to participate in the meetings referred to in Article IX of that Treaty.

3 "Antarctic Treaty area" means the area to which the provisions of the Antarctic Treaty apply in accordance with Article VI of that Treaty.

4 "Convention for the Conservation of Antarctic Seals" means the Convention done at London on 1 June 1972.

5 "Convention on the Conservation of Antarctic Marine Living Resources" means the Convention done at Canberra on 20 May 1980.

6 "Mineral resources" means all non-living natural non-renewable resources, including fossil fuels, metallic and non-metallic minerals.

7 "Antarctic mineral resource activities" means prospecting, exploration or development, but does not include scientific research activities within the meaning of Article III of the Antarctic Treaty.

8 "Prospecting" means activities, including logistic support, aimed at identifying areas of mineral resource potential for possible exploration and development, including geological, geochemical and geophysical investigations and field observations, the use of remote sensing techniques and collection of surface, seafloor and sub-ice samples. Such activities do not include dredging and excavations, except for the purpose of obtaining small-scale samples, or drilling, except shallow drilling into rock and sediment to depths not exceeding 25 metres, or such other depth as the Commission may determine for particular circumstances.

9 "Exploration" means activities, including logistic support, aimed at identifying and evaluating specific mineral resource occurrences or deposits, including exploratory drilling, dredging and other surface or subsurface excavations required to determine the nature and size of mineral resource deposits and the feasibility of their development, but excluding pilot projects or commercial production.

10 "Development" means activities, including logistic support, which take place following exploration and are aimed at or associated with exploitation of specific mineral resource deposits, including pilot projects, processing, storage and transport activities.

11 "Operator" means:

(a) a Party; or

(b) an agency or instrumentality of a Party; or

(c) a juridical person established under the law of a Party; or

(d) a joint venture consisting exclusively of an combination of any of the foregoing,

which is undertaking Antarctic mineral resource activities and for which there is a Sponsoring State.

12 "Sponsoring State" means the Party with which an Operator has a substantial and genuine link, through being:

(a) in the case of a Party, that Party;

(b) in the case of an agency or instrumentality of a Party, that Party;

(c) in the case of a juridical person other than an agency or instrumentality of a Party, the Party:

(i) under whose law that juridical person is established and to whose law it is subject, without prejudice to any other law which might be applicable, and

(ii) in whose territory the management of that juridical person is located, and

(iii) to whose effective control that juridical person is subject;

(d) in the case of a joint venture not constituting a juridical person:

(i) where the managing member of the joint venture is a Party or an agency or instrumentality of a Party, that Party; or

(ii) in any other case, where in relation to a Party the managing member of the joint venture satisfies the requirements of subparagraph (c) above, that Party.

13 "Managing member of the joint venture" means that member which the participating members in the joint venture have by agreement designated as having responsibility for central management of the joint venture, including the functions of organising and supervising the activities to be undertaken, and controlling the financial resources involved.

14 "Effective control" means the ability of the Sponsoring State to ensure the availability of substantial resources of the Operator for purposes connected with the implementation of this Convention, through the location of such resources in the territory of the Sponsoring State or otherwise.

15 "Damage to the Antarctic environment or dependent or associated ecosystems" means any impact on the living or non-living components of that environment or those ecosystems, including harm to atmospheric, marine or terrestrial life, beyond that which is negligible or which has been assessed and judged to be acceptable pursuant to this Convention.

16 "Commission" means the Antarctic Mineral Resources Commission established pursuant to Article 18.

17 "Regulatory Committee" means an Antarctic Mineral Resources Regulatory Committee established pursuant to Article 29.

18 "Advisory Committee" means the Scientific, Technical and Environmental Advisory Committee established pursuant to Article 23.

19 "Special Meeting of Parties" means the Meeting referred to in Article 28.

20 "Arbitral Tribunal" means an Arbitral Tribunal constituted as provided for in the Annex, which forms an integral part of this Convention.

Article 2

Objectives and General Principles

1 This Convention is an integral part of the Antarctic Treaty system, comprising the Antarctic Treaty, the measures in effect under that Treaty, and its associated separate legal instruments, the prime purpose of which is to ensure that Antarctica shall continue forever to be used exclusively for peaceful purposes and shall not become the scene or object of international discord. The Parties provide through this Convention, the principles it establishes, the rules it prescribes, the institutions it creates and the decisions adopted pursuant to it, a means for:

(a) assessing the possible impact on the environment of Antarctic mineral resource activities;

(b) determining whether Antarctic mineral resource activities are acceptable;

(c) governing the conduct of such Antarctic mineral resource activities as may be found acceptable; and

(d) ensuring that any Antarctic mineral resource activities are undertaken in strict conformity with this Convention.

2 In implementing this Convention, the Parties shall ensure that Antarctic mineral resource activities, should they occur, take place in a manner consistent with all the components of the Antarctic Treaty system and the obligations flowing therefrom.

3 In relation to Antarctic mineral resource activities, should they occur, the Parties acknowledge the special responsibility of the Antarctic Treaty Consultative Parties for the protection of the environment and the need to:

(a) protect the Antarctic environment and dependent and associated ecosystems;

(b) respect Antarctica's significance for, and influence on, the global environment;

(c) respect other legitimate uses of Antarctica;

(d) respect Antarctica's scientific value and aesthetic and wilderness qualities;

(e) ensure the safety of operations in Antarctica;

(f) promote opportunities for fair and effective participation of all Parties; and

(g) take into account the interests of the international community as a whole.

Article 3

Prohibition of Antarctic Mineral Resource Activities Outside this Convention

No Antarctic mineral resource activities shall be conducted except in accordance with this Convention and measures in effect pursuant to it and, in the case of exploration or development, with a Management Scheme approved pursuant to Article 48 or 54.

Article 4

Principles Concerning Judgments on Antarctic Mineral Resource Activities

1 Decisions about Antarctic mineral resource activities shall be based upon information adequate to enable informed judgments to be made about their possible impacts and no such activities shall take place unless this information is available for decisions relevant to those activities.

2 No Antarctic mineral resource activity shall take place until it is judged, based upon assessment of its possible impacts on the Antarctic environment and on dependent and on associated ecosystems, that the activity in question would not cause:

(a) significant adverse effects on air and water quality;

(b) significant changes in atmospheric, terrestrial or marine environments;

(c) significant changes in the distribution, abundance or productivity of populations of species of fauna or flora;

(d) further jeopardy to endangered or threatened species or populations of such species; or

(e) degradation of, or substantial risk to, areas of special biological, scientific, historic, aesthetic or wilderness significance.

3 No Antarctic mineral resource activity shall take place until it is judged, based upon assessment of its possible impacts, that the activity in question would not cause significant adverse effects on global or regional climate or weather patterns.

4 No Antarctic mineral resource activity shall take place until it is judged that:

(a) technology and procedures are available to provide for safe operations and compliance with paragraphs 2 and 3 above;

(b) there exists the capacity to monitor key environmental parameters and ecosystem components so as to identify any adverse effects of such activity and to provide for the modification of operating procedures as may be necessary in the light of the results of monitoring or increased knowledge of the ecosystems; and

(c) there exists the capacity to respond effectively to accidents, particularly those with potential environmental effects.

5 The judgments referred to in paragraphs 2, 3 and 4 above shall take into account the cumulative impacts of possible Antarctic mineral resource activities both by themselves and in combination with other such activities and other uses of Antarctica.

Article 5

Area of Application

1 This Convention shall, subject to paragraphs 2, 3 and 4 below, apply to the Antarctic Treaty area.

2 Without prejudice to the responsibilities of the Antarctic Treaty Consultative Parties under the Antarctic Treaty and measures pursuant to it, the Parties agree that this Convention shall regulate Antarctic mineral resource activities which take place on the continent of Antarctica and all Antarctic islands, including all ice shelves, south of 60° south latitude and in the seabed and subsoil of adjacent offshore areas up to the deep seabed.

3 For the purposes of this Convention "deep seabed" means the seabed and subsoil beyond the geographic extent of the continental shelf as the term continental shelf is defined in accordance with international law.

4 Nothing in this Article shall be construed as limiting the application of other Articles of this Convention in so far as they relate to possible impacts outside the area referred to in paragraphs 1 and 2 above, including impacts on dependent or on associated ecosystems.

Article 6

Cooperation and International Participation

In the implementation of this Convention cooperation within its framework shall be promoted and encouragement given to international participation in Antarctic mineral resource activities by interested Parties which are Antarctic Treaty Consultative Parties and by other interested Parties, in particular, developing countries in either category. Such participation may be realised through the Parties themselves and their Operators.

Article 7

Compliance with this Convention

1 Each Party shall take appropriate measures within its competence to ensure compliance with this Convention and any measures in effect pursuant to it.

2 If a Party is prevented by the exercise of jurisdiction by another Party from ensuring compliance in accordance with paragraph 1 above, it shall not, to the extent that it is so prevented, bear responsibility for that failure to ensure compliance.

3 If any jurisdictional dispute related to compliance with this Convention or any measure in effect pursuant to it arises between two or more Parties, the Parties concerned shall immediately consult together with a view to reaching a mutually acceptable solution.

4 Each Party shall notify the Executive Secretary, for circulation to all other Parties, of the measures taken pursuant to paragraph 1 above.

5 Each Party shall exert appropriate efforts consistent with the Charter of the United Nations, to the end that no one engages in any Antarctic mineral resource activities contrary to the objectives and principles of this Convention.

6 Each Party may, whenever it deems it necessary, draw the attention of the Commission to any activity which in its opinion affects the objectives and principles of this Convention.

7 The Commission shall draw the attention of all Parties to any activity which, in the opinion of the Commission, affects the implementation of the objectives and principles of this Convention or the compliance by any Party with its obligations under this Convention and any measures in effect pursuant to it.

8 The Commission shall draw the attention of any State which is not a Party to this Convention to any activity undertaken by that State, its agencies or instrumentalities, natural or juridical persons, ships, aircraft or other means of transportation which, in the opinion of the Commission, affects the implementation of the objectives and principles of this Convention. The Commission shall inform all Parties accordingly.

9 Nothing in this Article shall affect the operation of Article 12(7) of this Convention or Article VIII of the Antarctic Treaty.

Article 8

Response Action and Liability

1 An Operator undertaking any Antarctic mineral resource activity shall take necessary and timely response action, including prevention, containment, clean up and removal measures, if the activity results in or threatens to result in damage to the Antarctic environment or dependent or associated ecosystems. The Operator, through its Sponsoring State, shall notify the Executive Secretary, for circulation to the relevant institutions of this Convention and to all Parties, of action taken pursuant to this paragraph.

2 An Operator shall be strictly liable for:

(a) damage to the Antarctic environment or dependent or associated ecosystems arising from its Antarctic mineral resource activities, including payment in the event that there has been no restoration to the status quo ante;

(b) loss of or impairment to an established use, as referred to in Article 15, or loss of or impairment to an established use of dependent or associated ecosystems, arising directly out of damage described in subparagraph (a) above;

(c) loss of or damage to property of a third party or loss of life or personal injury of a third party arising directly out of damage described in subparagraph (a) above; and

(d) reimbursement of reasonable costs by whomsoever incurred relating to necessary response action, including prevention, containment, clean up and removal measures, and action taken to restore the status quo ante where Antarctic mineral resource activities undertaken by that Operator result in or threaten to result in damage to the Antarctic environment or dependent or associated ecosystems.

3 (a) Damage of the kind referred to in paragraph 2 above which would not have occurred or continued if the Sponsoring State had carried out its obligations under this Convention with respect to its Operator shall, in accordance with international law, entail liability of that Sponsoring State. Such liability shall be limited to that portion of liability not satisfied by the Operator or otherwise.

(b) Nothing in subparagraph (a) above shall affect the application of the rules of international law applicable in the event that damage not referred to in that subparagraph would not have occurred or continued if the Sponsoring State had carried out its obligations under this Convention with respect to its Operator.

4 An Operator shall not be liable pursuant to paragraph 2 above if it proves that the damage has been caused directly by, and to the extent that it has been caused directly by:

(a) an event constituting in the circumstances of Antarctica a natural disaster of an exceptional character which could not reasonably have been foreseen; or

(b) armed conflict, should it occur notwithstanding the Antarctic Treaty, or an act of terrorism directed against the activities of the Operator, against which no reasonable precautionary measures could have been effective.

5 Liability of an Operator for any loss of life, personal injury or loss of or damage to property other than that governed by this Article shall be regulated by applicable law and procedures.

6 If an Operator proves that damage has been caused totally or in part by an intentional or grossly negligent act or omission of the party seeking redress, that Operator may be relieved totally or in part from its obligation to pay compensation in respect of the damage suffered by such party.

7 (a) Further rules and procedures in respect of the provisions on liability set out in this Article shall be elaborated through a separate Protocol which shall be adopted by consensus by the members of the Commission and shall enter into force according to the procedure provided for in Article 62 for the entry into force of this Convention.

(b) Such rules and procedures shall be designed to enhance the protection of the Antarctic environment and dependent and associated ecosystems.

(c) Such rules and procedures:

(i) may contain provisions for appropriate limits on liability, where such limits can be justified;

(ii) without prejudice to Article 57, shall prescribe means and mechanisms such as a claims tribunal or other fora by which claims against Operators pursuant to this Article may be assessed and adjudicated;

(iii) shall ensure that a means is provided to assist with immediate response action, and to satisfy liability under paragraph 2 above in the event, inter alia, that an Operator liable is financially incapable of meeting its obligation in full, that it exceeds any relevant limits of liability, that there is a defence to liability or that the loss or damage is of undetermined origin. Unless it is determined during the elaboration of the Protocol that there are other effective means of meeting these objectives, the Protocol shall establish a Fund or Funds and make provision in respect of such Fund or Funds, inter alia, for the following:

- financing by Operators or on industry wide bases;

- ensuring the permanent liquidity and mandatory supplementation thereof in the event of insufficiency;

- reimbursement of costs of response action, by whomsoever incurred.

8 Nothing in paragraphs 4, 6 and 7 above or in the Protocol adopted pursuant to paragraph 7 shall affect in any way the provisions of paragraph 1 above.

9 No application for an exploration or development permit shall be made until the Protocol provided for in paragraph 7 above is in force for the Party lodging such application.

10 Each Party, pending the entry into force for it of the Protocol provided for in paragraph 7 above, shall ensure, consistently with Article 7 and in accordance with its legal system, that recourse is available in its national courts for adjudicating liability claims pursuant to paragraphs 2, 4 and 6 above against Operators which are engaged in prospecting. Such recourse shall include the adjudication of claims against any Operator it has sponsored. Each Party shall also ensure, in accordance with its legal system, that the Commission has the right to appear as a party in its national courts to pursue relevant liability claims under paragraph 2(a) above.

11 Nothing in this Article or in the Protocol provided for in paragraph 7 above shall be construed so as to:

(a) preclude the application of existing rules on liability, and the development in accordance with international law of further such rules, which may have application to either States or Operators; or

(b) affect the right of an Operator incurring liability pursuant to this Article to seek redress from another party which caused or contributed to the damage in question.

12 When compensation has been paid other than under this Convention liability under this Convention shall be offset by the amount of such payment.

Article 9

Protection of Legal Positions under the Antarctic Treaty

Nothing in this Convention and no acts or activities taking place while this Convention is in force shall:

(a) constitute a basis for asserting, supporting or denying a claim to territorial sovereignty in the Antarctic Treaty area or create any rights of sovereignty in the Antarctic Treaty area;

(b) be interpreted as a renunciation or diminution by any Party of, or as prejudicing, any right or claim or basis of claim to territorial sovereignty in Antarctica or to exercise coastal state jurisdiction under international law;

(c) be interpreted as prejudicing the position of any Party as regards its recognition or non-recognition of any such right, claim or basis of claim; or

(d) affect the provision of Article IV(2) of the Antarctic Treaty that no new claim, or enlargement of an existing claim, to territorial sovereignty in Antarctica shall be asserted while the Antarctic Treaty is in force.

Article 10

Consistency with the Other Components of the Antarctic Treaty System

1 Each Party shall ensure that Antarctic mineral resource activities take place in a manner consistent with the components of the Antarctic Treaty system, including the Antarctic Treaty, the Convention for the Conservation of Antarctic Seals and the Convention on the Conservation of Antarctic Marine Living Resources and the measures in effect pursuant to those instruments.

2 The Commission shall consult and cooperate with the Antarctic Treaty Consultative Parties, the Contracting Parties to the Convention for the Conservation of Antarctic Seals, and the Commission for the Conservation of Antarctic Marine Living Resources with a view to ensuring the achievement of the objectives and principles of this Convention and avoiding any interference with the achievement of the objectives and principles of the Antarctic Treaty, the Convention for the Conservation of Antarctic Seals or the Convention on the Conservation of Antarctic Marine Living Resources, or inconsistency between the measures in effect pursuant to those instruments and measures in effect pursuant to this Convention.

Article 11

Inspection under the Antarctic Treaty

All stations, installations and equipment, in the Antarctic Treaty area, relating to Antarctic mineral resource activities, as well as ships and aircraft supporting such activities at points of discharging or embarking cargoes or personnel at such stations and installations, shall be open at all times to inspection by observers designated under Article VII of the Antarctic Treaty for the purposes of that Treaty.

Article 12

Inspection under this Convention

1 In order to promote the objectives and principles and to ensure the observance of this Convention and measures in effect pursuant to it, all stations, installations and equipment relating to Antarctic mineral resource activities in the area in which these activities are regulated by this Convention, as well as ships and aircraft supporting such activities at points of discharging or embarking cargoes or personnel anywhere in that area shall be open at all times to inspection by:

(a) observers designated by any member of the Commission who shall be nationals of that member; and

(b) observers designated by the Commission or relevant Regulatory Committees.

2 Aerial inspection may be carried out at any time over the area in which Antarctic mineral resource activities are regulated by this Convention.

3 The Commission shall maintain an up-to-date list of observers designated pursuant to paragraph 1(a) and (b) above.

4 Reports from the observers shall be transmitted to the Commission and to any Regulatory Committee having competence in the area where the inspection has been carried out.

5 Observers shall avoid interference with the safe and normal operations of stations, installations and equipment visited and shall respect measures adopted by the Commission to protect confidentiality of data and information.

6 Inspections undertaken pursuant to paragraph 1(a) and (b) above shall be compatible and reinforce each other and shall not impose an undue burden on the operation of stations, installations and equipment visited.

7 In order to facilitate the exercise of their functions under this Convention, and without prejudice to the respective positions of the Parties relating to jurisdiction over all other persons in the area in which Antarctic mineral resource activities are regulated by this Convention, observers designated under this Article shall be subject only to the jurisdiction of the Party of which they are nationals in respect of all acts or omissions occurring while they are in that area for the purpose of exercising their functions.

8 No exploration or development shall take place in an area identified pursuant to Article 41 until effective provision has been made for inspection in that area.

Article 13

Protected Areas

1 Antarctic mineral resource activities shall be prohibited in any area designated as a Specially Protected Area or a Site of Special Scientific Interest under Article IX(1) of the Antarctic Treaty. Such activities shall also be prohibited in any other area designated as a protected area in accordance with Article IX(1) of the Antarctic Treaty, except to the extent that the relevant measure provides otherwise. Pending any designation becoming effective in accordance with Article IX(4) of the Antarctic Treaty, no Antarctic mineral resource activities shall take place in any such area which would prejudice the purpose for which it was designated.

2 The Commission shall also prohibit or restrict Antarctic mineral resource activities in any area which, for historic, ecological, environmental, scientific or other reasons, it has designated as a protected area.

3 In exercising its powers under paragraph 2 above or under Article 41 the Commission shall consider whether to restrict or prohibit Antarctic mineral resource activities in any area, in addition to those referred to in paragraph 1 above, protected or set aside pursuant to provisions of other components of the Antarctic Treaty system, to ensure the purposes for which they are designated.

4 In relation to any area in which Antarctic mineral resource activities are prohibited or restricted in accordance with paragraph 1, 2 or 3 above, the Commission shall consider whether, for the purposes of Article 4(2)(e), it would be prudent, additionally, to prohibit or restrict Antarctic mineral resource activities in adjacent areas for the purpose of creating a buffer zone.

5 The Commission shall give effect to Article 10(2) in acting pursuant to paragraphs 2, 3 and 4 above.

6 The Commission shall, where appropriate, bring any decisions it takes pursuant to this Article to the attention of the Antarctic Treaty Consultative Parties, the Contracting Parties to the Convention for the Conservation of Antarctic Seals, the Commission for the Conservation of Antarctic Marine Living Resources and the Scientific Committee on Antarctic Research.

Article 14

Non-Discrimination

In the implementation of this Convention there shall be no discrimination against any Party or its Operators.

Article 15

Respect for Other Uses of Antarctica

1 Decisions about Antarctic mineral resource activities shall take into account the need to respect other established uses of Antarctica, including:

(a) the operation of stations and their associated installations, support facilities and equipment in Antarctica;

(b) scientific investigation in Antarctica and cooperation therein;

(c) the conservation, including rational use, of Antarctic marine living resources;

(d) tourism;

(e) the preservation of historic monuments; and

(f) navigation and aviation,

that are consistent with the Antarctic Treaty system.

2 Antarctic mineral resource activities shall be conducted so as to respect any uses of Antarctica as referred to in paragraph 1 above.

Article 16

Availability and Confidentiality of Data and Information

Data and information obtained from Antarctic mineral resource activities shall, to the greatest extent practicable and feasible, be made freely available, provided that:

(a) as regards data and information of commercial value deriving from prospecting, they may be retained by the Operator in accordance with Article 37;

(b) as regards data and information deriving from exploration or development, the Commission shall adopt measures relating, as appropriate, to their release and to ensure the confidentiality of data and information of commercial value.

Article 17

Notifications and Provisional Exercise of Functions of the Executive Secretary

1 Where in this Convention there is a reference to the provision of information, a notification or a report to any institution provided for in this Convention and that institution has not been established, the information, notification or report shall be provided to the Executive Secretary who shall circulate it as required.

2 Where in this Convention a function is assigned to the Executive Secretary and no Executive Secretary has been appointed under Article 33, that function shall be performed by the Depositary.

CHAPTER II : INSTITUTIONS

Article 18

Commission

1 There is hereby established the Antarctic Mineral Resources Commission.

2 Membership of the Commission shall be as follows:

(a) each Party which was an Antarctic Treaty Consultative Party on the date when this Convention was opened for signature; and

(b) each other Party during such time as it is actively engaged in substantial scientific, technical or environmental research in the area to which this Convention applies directly relevant to decisions about Antarctic mineral resource activities, particularly the assessments and judgments called for in Article 4; and

(c) each other Party sponsoring Antarctic mineral resource exploration or development during such time as the relevant Management Scheme is in force.

3 A Party seeking to participate in the work of the Commission pursuant to subparagraph (b) or (c) above shall notify the Depositary of the basis upon which it seeks to become a member of the Commission. In the case of a Party which is not an Antarctic Treaty Consultative Party, such notification shall include a declaration of intent to abide by recommendations pursuant to Article IX(1) of the Antarctic Treaty. The Depositary shall communicate to each member of the Commission such notification and accompanying information.

4 The Commission shall consider the notification at its next meeting. In the event that a Party referred to in paragraph 2(b) above submitting a notification pursuant to paragraph 3 above is an Antarctic Treaty Consultative Party, it shall be deemed to have satisfied the requirements for Commission membership unless more than one-third of the members of the Commission object at the meeting at which such notification is considered. Any other Party submitting a notification shall be deemed to have satisfied the requirements for Commission membership if no member of the Commission objects at the meeting at which such notification is considered.

5 Each member of the Commission shall be represented by one representative who may be accompanied by alternate representatives and advisers.

6 Observer status in the Commission shall be open to any Party and to any Contracting Party to the Antarctic Treaty which is not a Party to this Convention.

Article 19

Commission Meetings

1 (a) The first meeting of the Commission, held for the purpose of taking organisational, financial and other decisions necessary for the effective functioning of this Convention and its institutions, shall be convened within six months of the entry into force of this Convention.

(b) After the Commission has held the meeting or meetings necessary to take the decisions referred to in subparagraph (a) above, the Commission shall not hold further meetings except in accordance with paragraph 2 or 3 below.

2 Meetings of the Commission shall be held within two months of:

(a) receipt of a notification pursuant to Article 39;

(b) a request by at least six members of the Commission; or

(c) a request by a member of a Regulatory Committee in accordance with Article 49(1).

3 The Commission may establish a regular schedule of meetings if it determines that it is necessary for the effective functioning of this Convention.

4 Unless the Commission decides otherwise, its meetings shall be convened by the Executive Secretary.

Article 20

Commission Procedure

1 The Commission shall elect from among its members a Chairman and two Vice-Chairmen, each of whom shall be representative of a different Party.

2 (a) Until such time as the Commission has established a regular schedule of meetings in accordance with Article 19(3), the Chairman and Vice-Chairmen shall be elected to serve for a period of two years, provided that if no meeting is held during that period they shall continue to serve until the conclusion of the first meeting held thereafter.

(b) When a regular schedule of meetings has been established, the Chairman and Vice-Chairmen shall be elected to serve for a period of two years.

3 The Commission shall adopt its rules of procedure. Such rules may include provisions concerning the number of terms of office which the Chairman and Vice-Chairmen may serve and for the rotation of such offices.

4 The Commission may establish such subsidiary bodies as are necessary for the performance of its functions.

5 The Commission may decide to establish a permanent headquarters which shall be in New Zealand.

6 The Commission shall have legal personality and shall enjoy in the territory of each Party such legal capacity as may be necessary to perform its functions and achieve the objectives of this Convention.

7 The privileges and immunities to be enjoyed by the Commission, the Secretariat and representatives attending meetings in the territory of a Party shall be determined by agreement between the Commission and the Party concerned.

Article 21

Functions of the Commission

1 The functions of the Commission shall be:

(a) to facilitate and promote the collection and exchange of scientific, technical and other information and research projects necessary to predict, detect and assess the possible environmental impact of Antarctic mineral resource activities, including the monitoring of key environmental parameters and ecosystem components;

(b) to designate areas in which Antarctic mineral resource activities shall be prohibited or restricted in accordance with Article 13, and to perform the related functions assigned to it in that Article;

(c) to adopt measures for the protection of the Antarctic environment and dependent and associated ecosystems and for the promotion of safe and effective exploration and development techniques and, as it may deem appropriate, to make available a handbook of such measures;

(d) to determine, in accordance with Article 41, whether or not to identify an area for possible exploration and development, and to perform the related functions assigned to it in Article 42;

(e) to adopt measures relating to prospecting applicable to all relevant Operators:

(i) to determine for particular circumstances maximum drilling depths in accordance with Article 1(8);

(ii) to restrict or prohibit prospecting consistently with Articles 13, 37 and 38;

(f) to ensure the effective application of Articles 12(4), 37(7) and (8), 38(2) and 39(2), which require the submission to the Commission of information, notifications and reports;

(g) to give advance public notice of matters upon which it is requesting the advice of the Advisory Committee;

(h) to adopt measures relating to the availability and confidentiality of data and information, including measures pursuant to Article 16;

(i) to elaborate the principle of non-discrimination set forth in Article 14;

(j) to adopt measures with respect to maximum block sizes;

(k) to perform the functions assigned to it in Article 29;

(l) to review action by Regulatory Committees in accordance with Article 49;

(m) to adopt measures in accordance with Articles 6 and 41(1)(d) related to the promotion of cooperation and to participation in Antarctic mineral resource activities;

(n) to adopt general measures pursuant to Article 51(6);

(o) to take decisions on budgetary matters and adopt financial regulations in accordance with Article 35;

(p) to adopt measures regarding fees payable in connection with notifications submitted pursuant to Articles 37 and 39 and applications lodged pursuant to Articles 44 and 53, the purpose of which fees shall be to cover the administrative costs of handling such notifications and applications;

(q) to adopt measures regarding levies payable by Operators engaged in exploration and development, the principal purpose of which levies shall be to cover the costs of the institutions of this Convention;

(r) to determine in accordance with Article 35(7) the disposition of revenues, if any, accruing to the Commission which are surplus to the requirements for financing the budget pursuant to Article 35;

(s) to perform the functions assigned to it in Article 7(7) and (8);

(t) to perform the functions relating to inspection assigned to it in Article 12;

(u) to consider monitoring reports received pursuant to Article 52;

(v) to perform the functions relating to dispute settlement assigned to it in Article 59;

(w) to perform the functions relating to consultation and cooperation assigned to it in Articles 10(2) and 34;

(x) to keep under review the conduct of Antarctic mineral resource activities with a view to safeguarding the protection of the Antarctic environment in the interest of all mankind; and

(y) to perform such other functions as are provided for elsewhere in this Convention.

2 In performing its functions the Commission shall seek and take full account of the views of the Advisory Committee provided in accordance with Article 26.

3 Each measure adopted by the Commission shall specify the date on which it comes into effect.

4 The Commission shall, subject to Article 16 and measures in effect pursuant to it and paragraph 1(h) above, ensure that a publicly available record of its meetings and decisions and of information, notifications and reports submitted to it is maintained.

Article 22

Decision Making in the Commission

1 The Commission shall take decisions on matters of substance by a three-quarters majority of the members present and voting. When a question arises as to whether a matter is one of substance or not, that matter shall be treated as one of substance unless otherwise decided by a three-quarters majority of the members present and voting.

2 Notwithstanding paragraph 1 above, consensus shall be required for the following:

(a) the adoption of the budget and decisions on budgetary and related matters pursuant to Article 21(1)(p), (q) and (r) and Article 35(1), (2), (3), (4) and (5);

(b) decisions taken pursuant to Article 21(1)(i);

(c) decisions taken pursuant to Article 41(2).

3 Decisions on matters of procedure shall be taken by simple majority of the members present and voting.

4 Nothing in this Article shall be interpreted as preventing the Commission, in taking decisions on matters of substance, from endeavouring to reach a consensus.

5 For the purposes of this Article, consensus means the absence of a formal objection. If, with respect to any decision covered by paragraph 2(c) above, the Chairman of the Commission determines that there would be such an objection he shall consult the members of the Commission. If, as a result of these consultations, the Chairman determines that an objection would remain, he shall convene those members most directly interested for the purpose of seeking to reconcile the differences and producing a generally acceptable proposal.

Article 23

Advisory Committee

1 There is hereby established the Scientific, Technical and Environmental Advisory Committee.

2 Membership of the Advisory Committee shall be open to all Parties.

3 Each member of the Advisory Committee shall be represented by one representative with suitable scientific, technical or environmental competence who may be accompanied by alternate representatives and by experts and advisers.

4 Observer status in the Advisory Committee shall be open to any Contracting Party to the Antarctic Treaty or to the Convention on the Conservation of Antarctic Marine Living Resources which is not a Party to this Convention.

Article 24

Advisory Committee Meetings

1 Unless the Commission decides otherwise, the Advisory Committee shall be convened for its first meeting within six months of the first meeting of the Commission. It shall meet thereafter as necessary to fulfil its functions on the basis of a schedule established by the Commission.

2 Meetings of the Advisory Committee, in addition to those scheduled pursuant to paragraph 1 above, shall be convened at the request of at least six members of the Commission or pursuant to Article 40(1).

3 Unless the Commission decides otherwise, the meetings of the Advisory Committee shall be convened by the Executive Secretary.

Article 25

Advisory Committee Procedure

1 The Advisory Committee shall elect from among its members a Chairman and two Vice-Chairmen, each of whom shall be a representative of a different Party.

2 (a) Until such time as the Commission has established a schedule of meetings in accordance with Article 24(1), the Chairman and Vice-Chairmen shall be elected to serve for a period of two years, provided that if no meeting is held during that period they shall continue to serve until the conclusion of the first meeting held thereafter.

(b) When a schedule of meetings has been established, the Chairman and Vice-Chairmen shall be elected to serve for a period of two years.

3 The Advisory Committee shall give advance public notice of its meetings and of matters to be considered at each meeting so as to permit the receipt and consideration of views on such matters from international organisations having an interest in them. For this purpose the Advisory Committee may, subject to review by the Commission, establish procedures for the transmission of relevant information to these organisations.

4 The Advisory Committee shall, by a two-thirds majority of the members present and voting, adopt its rules of procedure. Such rules may include provisions concerning the number of terms of office which the Chairman and Vice-Chairmen may serve and for the rotation of such offices. The rules of procedure and any amendments thereto shall be subject to approval by the Commission.

5 The Advisory Committee may establish such subcommittees, subject to budgetary approval, as may be necessary for the performance of its functions.

Article 26

Functions of the Advisory Committee

1 The Advisory Committee shall advise the Commission and Regulatory Committees, as required by this Convention, or as requested by them, on the scientific, technical and environmental aspects of Antarctic mineral resource activities. It shall provide a forum for consultation and cooperation concerning the collection, exchange and evaluation of information related to the scientific, technical and environmental aspects of Antarctic mineral resource activities.

2 It shall provide advice to:

(a) the Commission relating to its functions under Articles 21(1)(a) to (f), (u) and (x) and 35(7)(a) (in matters relating to scientific research) as well as on the implementation of Article 4; and

(b) Regulatory Committees with respect to:

(i) the implementation of Article 4;

(ii) scientific, technical and environmental aspects of Articles 43(3) and (5), 45, 47, 51, 52 and 54;

(iii) data to be collected and reported in accordance with Articles 47 and 52; and

(iv) the scientific, technical and environmental implications of reports and reported data provided in accordance with Articles 47 and 52.

3 It shall provide advice to the Commission and to Regulatory Committees on:

(a) criteria in respect of the judgments required under Article 4(2) and (3) for the purposes of Article 4(1);

(b) types of data and information required to carry out its functions, and how they should be collected, reported and archived;

(c) scientific research which would contribute to the base of data and information required in subparagraph (b) above;

(d) effective procedures and systems for data and information analysis, evaluation, presentation and dissemination to facilitate the judgments referred to in Article 4; and

(e) possibilities for scientific, technical and environmental cooperation amongst interested Parties which are developing countries and other Parties.

4 The Advisory Committee, in providing advice on decisions to be taken in accordance with Articles 41, 43, 45 and 54 shall, in each case, undertake a comprehensive environmental and technical assessment of the proposed actions. Such assessments shall be based on all information, and any amplifications thereof, available to the Advisory Committee, including the information provided pursuant to Articles 39(2)(e), 44(2)(b)(iii) and 53(2)(b). The assessments of the Advisory Committee shall, in each case, address the nature and scope of the decisions to be taken and shall include consideration, as appropriate, of, inter alia:

(a) the adequacy of existing information to enable informed judgments to be made;

(b) the nature, extent, duration and intensity of likely direct environmental impacts resulting from the proposed activity;

(c) possible indirect impacts;

(d) means and alternatives by which such direct or indirect impacts might be reduced, including environmental consequences of the alternative of not proceeding;

(e) cumulative impacts of the proposed activity in the light of existing or planned activities;

(f) capacity to respond effectively to accidents with potential environmental effects;

(g) the environmental significance of unavoidable impacts; and

(h) the probabilities of accidents and their environmental consequences.

5 In preparing its advice the Advisory Committee may seek information and advice from other scientists and experts or scientific organisations as may be required on an ad hoc basis.

6 The Advisory Committee shall, with a view to promoting international participation in Antarctic mineral resource activities as provided for in Article 6, provide advice concerning the availability to interested developing country Parties and other Parties, of the information referred to in paragraph 3 above, of training programmes related to scientific, technical and environmental matters bearing on Antarctic mineral resource activities, and of opportunities for cooperation among Parties in these programmes.

Article 27

Reporting by the Advisory Committee

The Advisory Committee shall present a report on each of its meetings to the Commission and to any relevant Regulatory Committee. The report shall cover all matters considered at the meeting and shall reflect the conclusions reached and all the views expressed by members of the Advisory Committee. The report shall be circulated by the Executive Secretary to all Parties, and to observers attending the meeting, and shall thereupon be made publicly available.

Article 28

Special Meeting of Parties

1 A Special Meeting of Parties shall, as required, be convened in accordance with Article 40(2) and shall have the functions, in relation to the identification of an area for possible exploration and development, specified in Article 40(3).

2 Membership of a Special Meeting of Parties shall be open to all Parties, each of which shall be represented by one representative who may be accompanied by alternate representatives and advisers.

3 Observer status at a Special Meeting of Parties shall be open to any Contracting Party to the Antarctic Treaty which is not a Party to this Convention.

4 Each Special Meeting of Parties shall elect from among its members a Chairman and Vice-Chairman, each of whom shall serve for the duration of that meeting. The Chairman and Vice-Chairman shall not be representatives of the same Party.

5 The Special Meeting of Parties shall, by a two-thirds majority of the members present and voting, adopt its rules of procedure. Until such time as this has been done the Special Meeting of Parties shall apply provisional rules of procedure drawn up by the Commission.

6 Unless the Commission decides otherwise, a Special Meeting of Parties shall be convened by the Executive Secretary and shall be held at the same venue as the meeting of the Commission convened to consider the identification of an area for possible exploration and development.

Article 29

Regulatory Committees

1 An Antarctic Mineral Resources Regulatory Committee shall be established for each area identified by the Commission pursuant to Article 41.

2 Subject to paragraph 6 below, each Regulatory Committee shall consist of 10 members. Membership shall be determined by the Commission in accordance with this Article and, taking into account Article 9, shall include:

(a) the member, if any, or if there are more than one, those members of the Commission identified by reference to Article 9(b) which assert rights or claims in the identified area;

(b) the two members of the Commission also identified by reference to Article 9(b) which assert a basis of claim in Antarctica;

(c) other members of the Commission determined in accordance with this Article so that the Regulatory Committee shall, subject to paragraph 6 below, consist, in total, of 10 members:

(i) four members identified by reference to Article 9(b) which assert rights or claims, including the member or members, if any, referred to in subparagraph (a) above; and

(ii) six members which do not assert rights or claims as described in Article 9(b), including the two members referred to in subparagraph (b) above.

3 Upon the identification of an area in accordance with Article 41(2), the Chairman of the Commission shall, as soon as possible and in any event within 90 days, make a recommendation to the Commission concerning the membership of the Regulatory Committee. To this end the Chairman shall consult, as appropriate, with the Chairman of the Advisory Committee and all members of the Commission. Such recommendation shall comply with the requirements of paragraphs 2 and 4 of this Article and shall ensure:

(a) the inclusion of members of the Commission which, whether through prospecting, scientific research or otherwise, have contributed substantial scientific, technical or environmental information relevant to the identification of the area by the Commission pursuant to Article 41;

(b) adequate and equitable representation of developing country members of the Commission, having regard to the overall balance between developed and developing country members of the Commission, including at least three developing country members of the Commission;

(c) that account is taken of the value of a rotation of membership of Regulatory Committees as a further means of ensuring equitable representation of members of the Commission.

4 (a) When there are one or more members of the Regulatory Committee referred to in paragraph 2(a) above, the Chairman of the Commission shall make the recommendation in respect of paragraph 2(c)(i) above upon the nomination, if any, of such member or members which shall take into account paragraph 3 above, in particular subparagraph (b) of that paragraph.

(b) In making the recommendation in respect of paragraph 2(c)(ii) above, the Chairman of the Commission shall give full weight to the views (which shall take into account paragraph 3 above) which may be presented on behalf of those members of the Commission which do not assert rights of or claims to territorial sovereignty in Antarctica and, with reference to the requirements of paragraph 3(b) above, to the views which may be presented on behalf of the developing countries among them.

5 The recommendation of the Chairman of the Commission shall be deemed to have been approved by the Commission if it does not decide otherwise at the same meeting as the recommendation is submitted. In taking any decision in accordance with this Article the Commission shall ensure that the requirements of paragraphs 2 and 3 above are complied with and that the nomination, if any, referred to in paragraph 4(a) above is given effect.

6 (a) If a member of the Commission which has sponsored prospecting in the identified area and submitted the notification pursuant to Article 39 upon which the Commission based its identification of the area pursuant to Article 41, is not a member of the regulatory Committee by virtue of paragraphs 2 and 3 above, that member of the Commission shall be a member of the Regulatory Committee until such time as an application for an exploration permit is lodged pursuant to Article 44.

(b) If a Party lodging an application for an exploration permit pursuant to Article 44 is not a member of the Regulatory Committee by virtue of paragraphs 2 and 3 above, that Party shall be a member of the Regulatory Committee for its consideration of that application. Should such application result in approval of a Management Scheme pursuant to Article 48, the Party in question shall remain a member of the Regulatory Committee during such time as that Management Scheme is in force with the right to take part in decisions on matters affecting that Management Scheme.

7 Nothing in this Article shall be interpreted as affecting Article IV of the Antarctic Treaty.

Article 30

Regulatory Committee Procedure

1 The first meeting of each Regulatory Committee shall be convened by the Executive Secretary in accordance with Article 43(1). Each Regulatory Committee shall meet thereafter when and where necessary to fulfil its functions.

2 Each member of a Regulatory Committee shall be represented by one representative who may be accompanied by alternate representatives and advisers.

3 Each Regulatory Committee shall elect from among its members a Chairman and Vice-Chairman. The Chairman and Vice-Chairman shall not be representatives of the same Party.

4 Any Party may attend meetings of a Regulatory Committee as an observer.

5 Each Regulatory Committee shall adopt its rules of procedure. Such rules may include provisions concerning the period and number of terms of office which the Chairman and Vice-Chairman may serve and for the rotation of such offices.

Article 31

Functions of Regulatory Committees

1 The functions of each Regulatory Committee shall be:

(a) to undertake the preparatory work provided for in Article 43;

(b) to consider applications for exploration and development permits in accordance with Articles 45, 46 and 54;

(c) to approve Management Schemes and issue exploration and development permits in accordance with Articles 47, 48 and 54;

(d) to monitor exploration and development activities in accordance with Article 52;

(e) to perform the functions assigned to it in Article 51;

(f) to perform the functions relating to inspection assigned to it in Article 12;

(g) to perform the functions relating to dispute settlement assigned to it in Article 47(r); and

(h) to perform such other functions as are provided for elsewhere in this Convention.

2 In performing its functions each Regulatory Committee shall seek and take full account of the views of the Advisory Committee provided in accordance with Article 26.

3 Each Regulatory Committee shall, subject to Article 16 and measures in effect pursuant to it and Article 21(1)(h), ensure that a publicly available record of its decisions, and of Management Schemes in force, is maintained.

Article 32

Decision Making in Regulatory Committees

1 Decisions by a Regulatory Committee pursuant to Articles 48 and 54(5) shall be taken by a two-thirds majority of the members present and voting, which majority shall include a simple majority of those members present and voting referred to in Article 29(2)(c)(i) and also a simple majority of those members present and voting referred to in Article 29(2)(c)(ii).

2 Decisions by a Regulatory Committee pursuant to Article 43(3) and (5) shall be taken by a two-thirds majority of the members present and voting, which majority shall include at least half of those members present and voting referred to in Article 29(2)(c)(i) and also at least half of those members present and voting referred to in Article 29(2)(c)(ii).

3 Decisions on all other matters of substance shall be taken by a two-thirds majority of the members present and voting. When a question arises as to whether a matter is one of substance or not, that matter shall be treated as one of substance unless otherwise decided by a two-thirds majority of the members present and voting.

4 Decisions on matters of procedure shall be taken by a simple majority of the members present and voting.

5 Nothing in this Article shall be interpreted as preventing a Regulatory Committee, in taking decisions on matters of substance, from endeavouring to reach a consensus.

Article 33

Secretariat

1 The Commission may establish a Secretariat to serve the Commission, Regulatory Committees, the Advisory Committee, the Special Meeting of Parties and any subsidiary bodies established.

2 The Commission may appoint an Executive Secretary, who shall be the head of the Secretariat, according to such procedures and on such terms and conditions as the Commission may determine. The Executive Secretary shall serve for a four year term and may be reappointed.

3 The Commission may, with due regard to the need for efficiency and economy, authorise such staff establishment for the Secretariat as may be necessary. The Executive Secretary shall appoint, direct and supervise the staff according to such rules and procedures and on such terms and conditions as the Commission may determine.

4 The Secretariat shall perform the functions specified in this Convention and, subject to the approved budget, the tasks entrusted to it by the Commission, Regulatory Committees, the Advisory Committee and the Special Meeting of Parties.

Article 34

Cooperation with International Organisations

1 The Commission and, as appropriate, the Advisory Committee shall cooperate with the Antarctic Treaty Consultative Parties, the Contracting Parties to the Convention for the Conservation of Antarctic Seals, the Commission for the Conservation of Antarctic Marine Living Resources, and the Scientific Committee on Antarctic Research.

2 The Commission shall cooperate with the United Nations, its relevant Specialised Agencies, and, as appropriate, any international organisation which may have competence in respect of mineral resources in areas adjacent to those covered by this Convention.

3 The Commission shall also, as appropriate, cooperate with the International Union for the Conservation of Nature and Natural Resources, and with other relevant international organisations, including non-governmental organisations, having a scientific, technical of environmental interest in Antarctica.

4 The Commission may, as appropriate, accord observer status in the Commission and in the Advisory Committee to such relevant international organisations, including non-governmental organisations, as might assist in the work of the institution in question. Observer status at a Special Meeting of Parties shall be open to such organisations as have been accorded observer status in the Commission or the Advisory Committee.

5 The Commission may enter into agreements with the organisations referred to in this Article.

Article 35

Financial Provisions

1 The Commission shall adopt a budget, on an annual or other appropriate basis, for:

(a) its activities and the activities of Regulatory Committees, the Advisory Committee, the Special Meeting of Parties, any subsidiary bodies established and the Secretariat; and

(b) the progressive reimbursement of any contributions paid under paragraphs 5 and 6 below whenever revenues under paragraph 4 below exceed expenditure.

2 The first draft budget shall be submitted by the Depositary at least 90 days before the first meeting of the Commission. At that meeting the Commission shall adopt its first budget and decide upon arrangements for the preparation of subsequent budgets.

3 The Commission shall adopt financial regulations.

4 Subject to paragraph 5 below, the budget shall be financed, inter alia, by:

(a) fees prescribed pursuant to Articles 21(1)(p) and43(2)(b);

(b) levies on Operators, subject to any measures adopted by the Commission in accordance with Article 21(1)(q), pursuant to Article 47(k)(i); and

(c) such other financial payments by Operators pursuant to Article 47(k)(ii) as may be required to be paid to the institutions of this Convention.

5 If the budget is not fully financed by revenues in accordance with paragraph 4 above, and subject to reimbursement in accordance with paragraph 1(b) above, the budget shall, to the extent of any shortfall and subject to paragraph 6 below, be financed by contributions from the members of the Commission. To this end, the Commission shall adopt as soon as possible a method of equitable sharing of contributions to the budget. The budget shall, in the meantime, to the extent of any shortfall, be financed by equal contributions from each member of the Commission.

6 In adopting the method of contributions referred to in paragraph 5 above the Commission shall consider the extent to which members of and observers at institutions of this Convention may be called upon to contribute to the costs of those institutions.

7 The Commission, in determining the disposition of revenues accruing to it, which are surplus to the requirements for financing the budget pursuant to this Article, shall:

(a) promote scientific research in Antarctica, particularly that related to the Antarctic environment and Antarctic resources, and a wide spread of participation in such research by all Parties, in particular developing country Parties;

(b) ensure that the interests of the members of Regulatory Committees having the most direct interest in the matter in relation to the areas in question are respected in any disposition of that surplus.

8 The finances of the Commission, Regulatory Committees, the Advisory Committee, the Special Meeting of Parties, any subsidiary bodies established and the Secretariat shall accord with the financial regulations adopted by the Commission and shall be subject to an annual audit by external auditors selected by the Commission.

9 Each member of the Commission, Regulatory Committees, the Advisory Committee, the Special Meeting of Parties and any subsidiary bodies established, as well as any observer at a meeting of any of the institutions of this Convention, shall meet its own expenses arising from attendance at meetings.

10 A member of the Commission that fails to pay its contribution for two consecutive years shall not, during the period of its continuing subsequent default, have the right to participate in the taking of decisions in any of the institutions of this Convention. If it continues to be in default for a further two consecutive years, the Commission shall decide what further action should be taken, which may include loss by that member of the right to participate in meetings of the institutions of this Convention. Such member shall resume the full enjoyment of its rights upon payment of the outstanding contributions.

11 Nothing in this Article shall be construed as prejudicing the position of any member of a Regulatory Committee on the outcome of consideration by the Regulatory Committee of terms and conditions in a Management Scheme pursuant to Article 47(k) (ii).

Article 36

Official and Working Languages

The official and working languages of the Commission, Regulatory Committees, the Advisory Committee, the Special Meeting of Parties and any meeting convened under Article 64 shall be English, French, Russian and Spanish.

CHAPTER III : PROSPECTING

Article 37

Prospecting

1 Prospecting shall not confer upon any Operator any right to Antarctic mineral resources.

2 Prospecting shall at all times be conducted in compliance with this Convention and with measures in effect pursuant to this Convention, but shall not require authorisation by the institutions of this Convention.

3 (a) The Sponsoring State shall ensure that its Operators undertaking prospecting maintain the necessary financial and technical means to comply with Article 8(1), and, to the extent that any such Operator fails to take response action as required in Article 8(1), shall ensure that this is undertaken.

(b) The Sponsoring State shall also ensure that its Operators undertaking prospecting maintain financial capacity, commensurate with the nature and level of the activity undertaken and the risks involved, to comply with Article 8(2).

4 In cases where more than one Operator is engaged in prospecting in the same general area, the Sponsoring State or States shall ensure that those Operators conduct their activities with due regard to each others' rights.

5 Where an Operator wishes to conduct prospecting in an area identified under Article 41 in which another Operator has been authorised to undertake exploration or development, the Sponsoring State shall ensure that such prospecting is carried out subject to the rights of any authorised Operator and any requirements to protect its rights specified by the relevant Regulatory Committee.

6 Each Operator shall ensure upon cessation of prospecting the removal of all installations and equipment and site rehabilitation. On the request of the Sponsoring State, the Commission may waive the obligation to remove installations and equipment.

7 The Sponsoring State shall notify the Commission at least nine months in advance of the commencement of planned prospecting. The notification shall be accompanied by such fees as may be established by the Commission in accordance with Article 21(1)(p) and shall:

(a) identify, by reference to coordinates of latitude and longitude or identifiable geographic features, the general area in which the prospecting is to take place;

(b) broadly identify the mineral resource or resources which are to be the subject of the prospecting;

(c) describe the prospecting, including the methods to be used, and the general programme of work to be undertaken and its expected duration;

(d) provide an assessment of the possible environmental and other impacts of the prospecting, taking into account possible cumulative impacts as referred to in Article 4(5);

(e) describe the measures, including monitoring programmes, to be adopted to avoid harmful environmental consequences or undue interference with other established uses of Antarctica, and outline the measures to be put into effect in the event of any accident and contingency plans for evacuation in an emergency;

(f) provide details on the Operator and certify that it:

(i) has a substantial and genuine link with the Sponsoring State as defined in Article 1(12); and

(ii) is financially and technically qualified to carry out the proposed prospecting in accordance with this Convention; and

(g) provide such further information as may be required by measures adopted by the Commission.

8 The Sponsoring State shall subsequently provide to the Commission:

(a) notification of any changes to the information referred to in paragraph 7 above;

(b) notification of the cessation of prospecting, including removal of any installations and equipment as well as site rehabilitation; and

(c) a general annual report on the prospecting undertaken by the Operator.

9 Notifications and reports submitted pursuant to this Article shall be circulated by the Executive Secretary without delay to all Parties and observers attending Commission meetings.

10 Paragraphs 7, 8 and 9 above shall not be interpreted as requiring the disclosure of data and information of commercial value.

11 The Sponsoring State shall ensure that basic data and information of commercial value generated by prospecting are maintained in archives and may at any time release part of or all such data and information, on conditions which it shall establish, for scientific or environmental purposes.

12 The Sponsoring State shall ensure that basic data and information, other than interpretative data, generated by prospecting are made readily available when such data and information are not, or are no longer, of commercial value and, in any event, no later than 10 years after the year the data and information were collected, unless it certifies to the Commission that the data and information continue to have commercial value. It shall review at regular intervals whether such data and information may be released and shall report the results of such reviews to the Commission.

13 The Commission may adopt measures consistent with this Article relating to the release of data and information of commercial value including requirements for certifications, the frequency of reviews and maximum time limits for extensions of the protection of such data and information.

Article 38

Consideration of Prospecting by the Commission

1 If a member of the Commission considers that a notification submitted in accordance with Article 37(7) or (8), or ongoing prospecting, causes concern as to consistency with this Convention or measures in effect pursuant thereto, that member may request the Sponsoring State to provide a clarification. If that member considers that an adequate response is not forthcoming from the Sponsoring State within a reasonable time, the member may request that the Commission be convened in accordance with Article 19(2)(b) to consider the question and take appropriate action.

2 If measures applicable to all relevant Operators are adopted by the Commission following a request made in accordance with paragraph 1 above, Sponsoring States that have submitted notifications in accordance with Article 37(7) or (8), and Sponsoring States whose Operators are conducting prospecting, shall ensure that the plans and activities of their Operators are modified to the extent necessary to conform with those measures within such time limit as the Commission may prescribe, and shall notify the Commission accordingly.

CHAPTER IV : EXPLORATION

Article 39

Requests for Identification of an Area for Possible Exploration and Development

1 Any Party may submit to the Executive Secretary a notification requesting that the Commission identify an area for possible exploration and development of a particular mineral resource or resources.

2 Any such notification shall be accompanied by such fees as may be established by the Commission in accordance with Article 21(1)(p) and shall contain:

(a) a precise delineation, including coordinates, of the area proposed for identification;

(b) specification of the resource or resources for which the area would be identified and any relevant data and information, excluding data and information of commercial value, concerning that resource or those resources, including a geological description of the proposed area;

(c) a detailed description of the physical and environmental characteristics of the proposed area;

(d) a description of the likely scale of exploration and development for the resource or resources involved in the proposed area and of the methods which could be employed in such exploration and development;

(e) a detailed assessment of the environmental and other impacts of possible exploration and development for the resource or resources involved, taking into account Articles 15 and 26(4); and

(f) such other information as may be required pursuant to measures adopted by the Commission.

3 A notification under paragraph 1 above shall be referred promptly by the Executive Secretary to all Parties and shall be circulated to observers attending the meeting of the Commission to be convened pursuant to Article 19(2)(a).

Article 40

Action by the Advisory Committee and Special Meeting of Parties

1 The Advisory Committee shall meet as soon as possible after the meeting of the Commission convened pursuant to Article 19(2)(a) has commenced. The Advisory Committee shall provide advice to the Commission on the notification submitted pursuant to Article 39(1). The Commission may prescribe a time limit for the provision of such advice.

2 A Special Meeting of Parties shall meet as soon as possible after circulation of the report of the Advisory Committee and in any event not later than two months after that report has been circulated.

3 The Special Meeting of Parties shall consider whether identification of an area by the Commission in accordance with the request contained in the notification would be consistent with this Convention, and shall report thereon to the Commission as soon as possible and in any event not later than 21 days from the commencement of the meeting.

4 The report of the Special Meeting of Parties to the Commission shall reflect the conclusions reached and all the views expressed by Parties participating in the meeting.

Article 41

Action by the Commission

1 The Commission shall, as soon as possible after receipt of the report of the Special Meeting of Parties, consider whether or not it will identify an area as requested. Taking full account of the views and giving special weight to the conclusions of the Special Meeting of Parties, and taking full account of the views and the conclusions of the Advisory Committee, the Commission shall determine whether such identification would be consistent with this Convention. For this purpose:

(a) the Commission shall ensure that an area to be identified shall be such that, taking into account all factors relevant to such identification, including the physical, geological, environmental and other characteristics of such area, it forms a coherent unit for the purposes of resource management. The Commission shall thus consider whether an area to be identified should include all or part of that which was requested in the notification and, subject to the necessary assessments having been made, areas not covered by that notification;

(b) the Commission shall consider whether there are, within an area requested or to be identified, any areas in which exploration and development are or should be prohibited or restricted in accordance with Article 13;

(c) the Commission shall specify the mineral resource or resources for which the area would be identified;

(d) the Commission shall give effect to Article 6, by elaborating opportunities for joint ventures or different forms of participation, up to a defined level, including procedures for offering such participation, in possible

exploration and development, within the area, by interested Parties which are Antarctic Treaty Consultative Parties and by other interested Parties, in particular, developing countries in either category;

(e) the Commission shall prescribe any additional associated conditions necessary to ensure that an area to be identified is consistent with other provisions of this Convention and may prescribe general guidelines relating to the operational requirements for exploration and development in an area to be identified including measures establishing maximum block sizes and advice concerning related support activities; and

(f) the Commission shall give effect to the requirement in Article 59 to establish additional procedures for the settlement of disputes.

2 After it has completed its consideration in accordance with paragraph 1 above, the Commission shall identify an area for possible exploration and development if there is a consensus of Commission members that such identification is consistent with this Convention.

Article 42

Revision in the Scope of an Identified Area

1 If, after an area has been identified in accordance with Article 41, a Party requests identification of an area, all or part of which is contained within the boundaries of the area already identified but in respect of a mineral resource or resources different from any resource in respect of which the area has already been identified, the request shall be dealt with in accordance with Articles 39, 40 and 41. Should the Commission identify an area in respect of such different mineral resource or resources, it shall have regard, in addition to the requirements of Article 41(1)(a), to the desirability of specifying the boundaries of the area in such a way that it can be assigned to the Regulatory Committee with competence for the area already identified.

2 In the light of increased knowledge bearing on the effective management of the area, and after seeking the views of the Advisory Committee and the relevant Regulatory Committee, the Commission may amend the boundaries of any area it has identified. In making any such amendment the Commission shall ensure that authorised exploration and development in the area are not adversely affected. Unless there are compelling reasons for doing so, the Commission shall not amend the boundaries of an area it has identified in such a way as to involve a change in the composition of the relevant Regulatory Committee.

Article 43

Preparatory Work by Regulatory Committees

1 As soon as possible after the identification of an area pursuant to Article 41, the relevant Regulatory Committee established in accordance with Article 29 shall be convened.

2 The Regulatory Committee shall:

(a) subject to any measures adopted by the Commission pursuant to Article 21(1)(j) relating to maximum block sizes, divide its area of competence into blocks in respect of which applications for exploration and development may be submitted and make provision for a limit in appropriate circumstances on the number of blocks to be accorded to any Party;

(b) subject to any measures adopted by the Commission pursuant to Article 21(1)(p), establish fees to be paid with any application for an exploration development permit lodged pursuant to Article 44 or 53;

(c) establish periods within which applications for exploration and development may be lodged, all applications received within each such period being considered as simultaneous;

(d) establish procedures for the handling of applications; and

(e) determine a method of resolving competing applications which are not resolved in accordance with Article 45(4)(a), which method shall, provided that all other requirements of this Convention are satisfied and consistent with measures adopted pursuant to Article 41(1)(d), include priority for the application with the broadest participation among interested Parties which are Antarctic Treaty Consultative Parties and other interested Parties, in particular, developing countries in either category.

3 The Regulatory Committee shall adopt guidelines which are consistent with, and which taken together with, the provisions of this Convention and measures of general applicability adopted by the Commission, as well as associated conditions and general guidelines adopted by the Commission when identifying the area, shall, by addressing the relevant items in Article 47, identify the general requirements for exploration and development in its area of competence.

4 Upon adoption of guidelines under paragraph 3 above the Executive Secretary shall, without delay, inform all members of the Commission of the decisions taken by the Regulatory Committee pursuant to paragraphs 2 and 3 above and shall make them publicly available together with relevant measures, associated conditions and general guidelines adopted by the Commission.

5 The Regulatory Committee may from time to time revise guidelines adopted under paragraph 3 above, taking into account any views of the Commission.

6 In performing its functions under paragraphs 3 and 5 above, the Regulatory Committee shall seek and take full account of the views of the Advisory Committee provided in accordance with Article 26.

Article 44

Application for an Exploration Permit

1 Following completion of the work undertaken pursuant to Article 43, any Party, on behalf of an Operator for which it is the Sponsoring State, may lodge with the Regulatory Committee an application for an exploration permit within the periods established by the Regulatory Committee pursuant to Article 43(2)(c).

2 An application shall be accompanied by the fees established by the Regulatory Committee in accordance with Article 43(2)(b) and shall contain:

(a) a detailed description of the Operator, including its managerial structure, financial composition and resources and technical expertise, and, in the case of an Operator being a joint venture, the inclusion of a detailed description of the degree to which Parties are involved in the Operator through, inter alia, juridical persons with which Parties have substantial and genuine links, so that each component of the joint venture can be easily attributed to a Party or Parties for the purposes of identifying the level of Antarctic mineral resource activities thereof, which description of substantial and genuine links shall include a description of equity sharing;

(b) A detailed description of the proposed exploration activities and a description in as much detail as possible of proposed development activities, including:

(i) an identification of the mineral resource or resources and the block to which the application applies;

(ii) a detailed explanation of how the proposed activities conform with the general requirements referred to in Article 43(3);

(iii) a detailed assessment of the environmental and other impacts of the proposed activities, taking into account Articles 15 and 26(4); and

(iv) a description of the capacity to respond effectively to accidents, especially those with potential environmental effects;

(c) a certification by the Sponsoring State of capacity of the Operator to comply with the general requirements referred to in Article 43(3);

(d) a certification by the Sponsoring State of the technical competence and financial capacity of the Operator and that the Operator has a substantial and genuine link with it as defined in Article 1(12);

(e) a description of the manner in which the application complies with any measures adopted by the Commission pursuant to Article 41(1)(d); and

(f) such further information as may be required by the Regulatory Committee or in measures adopted by the Commission.

Article 45

Examination of Applications

1 The Regulatory Committee shall meet as soon as possible after an application has been lodged pursuant to Article 44, for the purpose of elaborating a Management Scheme. In performing this function it shall:

(a) determine whether the application contains sufficient or adequate information pursuant to Article 44(2). To this end, it may at any time seek further information from the Sponsoring State consistent with Article 44(2);

(b) consider the exploration and development activities proposed in the application, and such elaborations, revisions or adaptations as necessary:

(i) to ensure their consistency with this Convention as well as measures in effect pursuant thereto and the general requirements referred to in Article 43(3); and

(ii) to prescribe the specific terms and conditions of a Management Scheme in accordance with Article 47.

2 At any time during the process of consideration described above, the Regulatory Committee may decline the application if it considers that the activities proposed therein cannot be elaborated, revised or adapted to ensure consistency with this Convention as well as measures in effect pursuant thereto and the general requirements referred to in Article 43(3).

3 In performing its functions under this Article, the Regulatory Committee shall seek and take full account of the views of the Advisory Committee. To that end the Regulatory Committee shall refer to the Advisory Committee all parts of the application which are necessary for it to provide advice pursuant to Article 26, together with any other relevant information.

4 If two or more applications meeting the requirements of Article 44(2) are lodged in respect of the same block:

(a) the competing applicants shall be invited by the Regulatory Committee to resolve the competition amongst themselves, by means of their own choice within a prescribed period;

(b) if the competition is not resolved pursuant to subparagraph (a) above it shall be resolved by the Regulatory Committee in accordance with the method determined by it pursuant to Article 43(2)(e).

Article 46

Management Scheme

In performing its functions under Article 45, including the preparation of a Management Scheme, and under Article 54, the Regulatory Committee shall have recourse to the Sponsoring State and the member or members, if any, referred to in Article 29(2) (a) and, as may be required, one or two additional members of the Regulatory Committee.

Article 47

Scope of the Management Scheme

The Management Scheme shall prescribe the specific terms and conditions for exploration and development of the mineral resource or resources concerned within the relevant block. Such terms and conditions shall be consistent with the general requirements referred to in Article 43(3), and shall cover, inter alia:

(a) duration of exploration and development permits;

(b) measures and procedures for the protection of the Antarctic environment and dependent and associated ecosystems, including methods, activities and undertakings by the Operator to minimise environmental risks and damage;

(c) provision for necessary and timely response action, including prevention, containment and clean up and removal measures, for restoration to the status quo ante, and for contingency plans, resources and equipment to enable such action to be taken;

(d) procedures for the implementation of different stages of exploration and development;

(e) performance requirements;

(f) technical and safety specifications, including standards and procedures to ensure safe operations;

(g) monitoring and inspection;

(h) liability;

(i) procedures for the development of mineral deposits which extend outside the area covered by a permit;

(j) resource conservation requirements;

(k) financial obligations of the Operator including:

  (i) levies in accordance with measures adopted pursuant to Article 21(1)(q);

  (ii) payments in the nature of and similar to taxes, royalties or payments in kind;

(l) financial guarantees and insurance;

(m) assignment and relinquishment;

(n) suspension and modification of the Management Scheme, or cancellation of the Management Scheme, exploration or development permit, and the imposition of monetary penalties, in accordance with Article 51;

(o) procedures for agreed modifications;

(p) enforcement of the Management Scheme;

(q) applicable law to the extent necessary;

(r) effective additional procedures for the settlement of disputes;

(s) provisions to avoid and to resolve conflict with other legitimate uses of Antarctica;

(t) data and information collection, reporting and notification requirements;

(u) confidentiality; and

(v) removal of installations and equipment, as well as site rehabilitation.

Article 48

Approval of the Management Scheme

A Management Scheme prepared in accordance with Articles 45, 46 and 47 shall be subject to approval pursuant to Article 32. Such approval shall constitute authorisation for the issue without delay of an exploration permit by the Regulatory Committee. The exploration permit shall accord exclusive rights to the Operator to explore and, subject to Articles 53 and 54, to develop the mineral resource or resources which are the subject of the Management Scheme exclusively in accordance with the terms and conditions of the Management Scheme.

Article 49

Review

1 Any member of the Commission, or any member of a Regulatory Committee, may within one month of a decision by that Regulatory Committee to approve a Management Scheme or issue a development permit, request that the Commission be convened in accordance with Article 19(2)(b) or (c), as the case may be, to review the decision of the Regulatory Committee for consistency with the decision taken by the Commission to identify the area pursuant to Article 41 and any measures in effect relevant to that decision.

2 The Commission shall complete its consideration within three months of a request made pursuant to paragraph 1 above. In performing its functions the Commission shall not assume the functions of the Regulatory Committee, nor shall it substitute its discretion for that of the Regulatory Committee.

3 Should the Commission determine that a decision to approve a Management Scheme or issue a development permit is inconsistent with the decision taken by the Commission to identify the area pursuant to Article 41 and any measures in effect relevant to that decision, it may request that Regulatory Committee to reconsider its decision.

Article 50

Rights of Authorised Operators

1 No Management Scheme shall be suspended or modified and no Management Scheme, exploration or development permit shall be cancelled without the consent of the Sponsoring State except pursuant to Article 51, or Article 54 or the Management Scheme itself.

2 Each Operator authorised to conduct activities pursuant to a Management Scheme shall exercise its rights with due regard to the rights of other Operators undertaking exploration or development in the same identified area.

Article 51

Suspension, Modification or Cancellation of the Management Scheme and Monetary Penalties

1 If a Regulatory Committee determines that exploration or development authorised pursuant to a Management Scheme has resulted or is about to result in impacts on the Antarctic environment or dependent or associated ecosystems beyond those judged acceptable pursuant to this Convention, it shall suspend the relevant activities and as soon as possible modify the Management Scheme so as to avoid such impacts. If such impacts cannot be avoided by the modification of the Management Scheme, the Regulatory Committee shall suspend it, or cancel it and the exploration or development permit.

2 In performing its functions under paragraph 1 above a Regulatory Committee shall, unless emergency action is required, seek and take into account the views of the Advisory Committee.

3 If a Regulatory Committee determines that an Operator has failed to comply with this Convention or with measures in effect pursuant to it or a Management Scheme applicable to that Operator, the Regulatory Committee may do all or any of the following:

(a) modify the Management Scheme;

(b) suspend the Management Scheme;

(c) cancel the Management Scheme and the exploration or development permit; and

(d) impose a monetary penalty.

4 Sanctions determined pursuant to paragraph 3(a) to (d) above shall be proportionate to the seriousness of the failure to comply.

5 A Regulatory Committee shall cancel a Management Scheme and the exploration or development permit if an Operator ceases to have a substantial and genuine link with the Sponsoring State as defined in Article 1(12).

6 The Commission shall adopt general measures, which may include mitigation, relating to action by Regulatory Committees pursuant to paragraphs 1 and 3 above and, as appropriate, to the consequences of such action. No application pursuant to Article 44 may be lodged until such measures have come into effect.

Article 52

Monitoring in Relation to Management Schemes

1 Each Regulatory Committee shall monitor the compliance of Operators with Management Schemes within its area of competence.

2 Each Regulatory Committee, taking into account the advice of the Advisory Committee, shall monitor and assess the effects on the Antarctic environment and on dependent and on associated ecosystems of Antarctic mineral resource activities within its area of competence, particularly by reference to key environmental parameters and ecosystem components.

3 Each Regulatory Committee shall, as appropriate, inform the Commission and the Advisory Committee in a timely fashion of monitoring under this Article.

CHAPTER V : DEVELOPMENT

Article 53

Application for a Development Permit

1 At any time during the period in which an approved Management Scheme and exploration permit are in force for an Operator, the Sponsoring State may, on behalf of that Operator, lodge with the Regulatory Committee an application for a development permit.

2 An application shall be accompanied by the fees established by the Regulatory Committee in accordance with Article 43(2)(b) and shall contain:

(a) an updated description of the planned development identifying any modifications proposed to the approved Management Scheme and any additional measures to be taken, consequent upon such modifications, to ensure consistency with this Convention, including any measures in effect pursuant thereto and the general requirements referred to in Article 43(3);

(b) a detailed assessment of the environmental and other impacts of the planned development, taking into account Articles 15 and 26(4);

(c) a recertification by the Sponsoring State of the technical competence and financial capacity of the Operator and that the Operator has a substantial genuine link with it as defined in Article 1(12);

(d) a recertification by the Sponsoring State of the capacity of the Operator to comply with the general requirements referred to in Article 43(3);

(e) updated information in relation to all other matters specified in Article 44(2); and

(f) such further information as may be required by the Regulatory Committee or in measures adopted by the Commission.

Article 54

Examination of Applications and Issue of Development Permits

1 The Regulatory Committee shall meet as soon as possible after an application has been lodged pursuant to Article 53.

2 The Regulatory Committee shall determine whether the application contains sufficient or adequate information pursuant to Article 53(2). In performing this function it may at any time seek further information from the Sponsoring State consistent with Article 53(2).

3 The Regulatory Committee shall consider whether:

(a) the application reveals modifications to the planned development previously envisaged;

(b) the planned development would cause previously unforeseen impacts on the Antarctic environment or dependent or associated ecosystems, either as a result of any modifications referred to in subparagraph (a) above or in the light of increased knowledge.

4 The Regulatory Committee shall consider any modifications to the Management Scheme necessary in the light of paragraph 3 above to ensure that the development activities proposed would be undertaken consistently with this Convention as well as measures in effect pursuant thereto and the general requirements referred to in Article 43(3). However, the financial obligations specified in the approved Management Scheme may not be revised without the consent of the Sponsoring State, unless provided for in the Management Scheme itself.

5 If the Regulatory Committee in accordance with Article 32 approves modifications under paragraph 4 above, or if it does not consider that such modifications are necessary, the Regulatory Committee shall issue without delay a development permit.

6 In performing its functions under this Article, the Regulatory Committee shall seek and take full account of the views of the Advisory Committee. To that end the Regulatory Committee shall refer to the Advisory Committee all parts of the application which are necessary for it to provide advice pursuant to Article 26, together with any other relevant information.

CHAPTER VI : DISPUTES SETTLEMENT

Article 55

Disputes Between Two or More Parties

Articles 56, 57 and 58 apply to disputes between two or more Parties.

Article 56

Choice of Procedure

1 Each Party, when signing, ratifying, accepting, approving or acceding to this Convention, or at any time thereafter, may choose, by written declaration, one or both of the following means for the settlement of disputes concerning the interpretation or application of this Convention:

(a) the International Court of Justice;

(b) the Arbitral Tribunal.

2 A declaration made under paragraph 1 above shall not affect the operation of Article 57(1), (3), (4) and (5).

3 A Party that has not made a declaration under paragraph 1 above or in respect of which a declaration is no longer in force shall be deemed to have accepted the competence of the Arbitral Tribunal.

4 If the parties to a dispute have accepted the same means for the settlement of a dispute, the dispute may be submitted only to that procedure, unless the parties otherwise agree.

5 If the parties to a dispute have not accepted the same means for the settlement of a dispute, or if they have both accepted both means, the dispute may be submitted only to the Arbitral Tribunal, unless the parties otherwise agree.

6 A declaration made under paragraph 1 above shall remain in force until it expires in accordance with its terms or until 3 months after written notice of revocation has been deposited with the Depositary.

7 A new declaration, a notice of revocation or the expiry of a declaration shall not in any way affect proceedings pending before the International Court of Justice or the Arbitral Tribunal, unless the parties to the dispute otherwise agree.

8 Declarations and notices referred to in this Article shall be deposited with the Depositary who shall transmit copies thereof to all Parties.

Article 57

Procedure for Dispute Settlement

1 If a dispute arises concerning the interpretation or application of this Convention, the parties to the dispute shall, at the request of any one of them, consult among themselves as soon as possible with a view to having the dispute resolved by negotiation, enquiry, mediation, conciliation, arbitration, judicial settlement or other peaceful means of their choice.

2 If the parties to a dispute concerning the interpretation or application of this Convention have not agreed on a means for resolving it within 12 months of the request for consultation pursuant to paragraph 1 above, the dispute

shall be referred, at the request of any party to the dispute, for settlement in accordance with the procedure determined by the operation of Article 56(4) and (5).

3 If a dispute concerning the interpretation or application of this Convention relates to a measure in effect pursuant to this Convention or a Management Scheme and the parties to such a dispute:

(a) have not agreed on a means for resolving the dispute within 6 months of the request for consultation pursuant to paragraph 1 above, the dispute shall be referred, at the request of any party to the dispute, for discussion in the institution which adopted the instrument in question;

(b) have not agreed on a means for resolving the dispute within 12 months of the request for consultation pursuant to paragraph 1 above, the dispute shall be referred for settlement, at the request of any party to the dispute, to the Arbitral Tribunal.

4 The Arbitral Tribunal shall not be competent to decide or otherwise rule upon any matter within the scope of Article 9. In addition, nothing in this Convention shall be interpreted as conferring competence or jurisdiction on the International Court of Justice or any other tribunal established for the purpose of settling disputes between Parties to decide or otherwise rule upon any matter within the scope of Article 9.

5 The Arbitral Tribunal shall not be competent with regard to the exercise by an institution of its discretionary powers in accordance with this Convention; in no case shall the Arbitral Tribunal substitute its discretion for that of an institution. In addition, nothing in this Convention shall be interpreted as conferring competence or jurisdiction on the International Court of Justice or any other tribunal established for the purpose of settling disputes between Parties with regard to the exercise by an institution of its discretionary powers or to substitute its discretion for that of an institution.

Article 58

Exclusion of Categories of Disputes

1 Any Party, when signing, ratifying, accepting, approving or acceding to this Convention, or at any time thereafter, may, by written declaration, exclude the operation of Article 57(2) or (3) without its consent with respect to a category or categories of disputes specified in the declaration. Such declaration may not cover disputes concerning the interpretation or application of:

(a) any provision of this Convention or of any measure in effect pursuant to it relating to the protection of the Antarctic environment or dependent or associated ecosystems;

(b) Article 7(1);

(c) Article 8;

(d) Article 12;

(e) Article 14;

(f) Article 15; or

(g) Article 37.

2 Nothing in paragraph 1 above or in any declaration made under it shall affect the operation of Article 57(1), (4) and (5).

3 A declaration made under paragraph 1 above shall remain in force until it expires in accordance with its terms or until 3 months after written notice of revocation has been deposited with the Depositary.

4 A new declaration, a notice of revocation or the expiry of a declaration shall not in any way affect proceedings pending before the International Court of Justice or the Arbitral Tribunal, unless the parties to the dispute otherwise agree.

5 Declarations and notices referred to in this Article shall be deposited with the Depositary who shall transmit copies thereof to all Parties.

6 A Party which, by declaration made under paragraph 1 above, has excluded a specific category or categories of disputes from the operation of Article 57(2) or (3) without its consent shall not be entitled to submit any dispute falling within that category or those categories for settlement pursuant to Article 57(2) or (3), as the case may be, without the consent of the other party or parties to the dispute.

Article 59

Additional Dispute Settlement Procedures

1 The Commission, in conjunction with its responsibilities pursuant to Article 41(1), shall establish additional procedures for third-party settlement, by the Arbitral Tribunal or through other similar procedures, of disputes which may arise if it is alleged that a violation of this Convention has occurred by virtue of:

(a) a decision to decline a Management Scheme;

(b) a decision to decline the issue of a development permit; or

(c) a decision to suspend, modify or cancel a Management Scheme or to impose monetary penalties.

2 Such procedures shall:

(a) permit, as appropriate, Parties and Operators under their sponsorship, but not both in respect of any particular dispute, to initiate proceedings against a Regulatory Committee;

(b) require disputes to which they relate to be referred in the first instance to the relevant Regulatory Committee for consideration;

(c) incorporate the rules in Article 57(4) and (5).

CHAPTER VII : FINAL CLAUSES

Article 60

Signature

This Convention shall be open for signature at Wellington from 25 November 1988 to 25 November 1989 by States which participated in the final session of the Fourth Special Antarctic Treaty Consultative Meeting.

Article 61

Ratification, Acceptance, Approval or Accession

1 This Convention is subject to ratification, acceptance or approval by Signatory States.

2 After 25 November 1989 this Convention shall be open for accession by any State which is a Contracting Party to the Antarctic Treaty.

3 Instruments of ratification, acceptance, approval or accession shall be deposited with the Government of New Zealand, hereby designated as the Depositary.

Article 62

Entry Into Force

1 This Convention shall enter into force on the thirtieth day following the date of deposit of instruments of ratification, acceptance, approval or accession by 16 Antarctic Treaty Consultative Parties which participated as such in the final session of the Fourth Special Antarctic Treaty Consultative Meeting, provided that number includes all the States necessary in order to establish all of the institutions of the Convention in respect of every area of Antarctica, including 5 developing countries and 11 developed countries.

2 For each State which, subsequent to the date of entry into force of this Convention, deposits an instrument of ratification, acceptance, approval or accession, the Convention shall enter into force on the thirtieth day following such deposit.

Article 63

Reservations, Declarations and Statements

1 Reservations to this Convention shall not be permitted. This does not preclude a State, when signing, ratifying, accepting, approving or acceding to this Convention, from making declarations or statements, however phrased or named, with a view, inter alia, to the harmonisation of its laws and regulations with this Convention, provided that such declarations or statements do not purport to exclude or to modify the legal effect of this Convention in its application to that State.

2 The provisions of this Article are without prejudice to the right to make written declarations in accordance with Article 58.

Article 64

Amendment

1 This Convention shall not be subject to amendment until after the expiry of 10 years from the date of its entry into force. Thereafter, any Party may, by written communication addressed to the Depositary, propose a specific amendment to this Convention and request the convening of a meeting to consider such proposed amendment.

2 The Depositary shall circulate such communication to all Parties. If within 12 months of the date of circulation of the communication at least one-third of the Parties reply favourably to the request, the Depositary shall convene the meeting.

3 The adoption of an amendment considered at such a meeting shall require the affirmative votes of two-thirds of the Parties present and voting, including the concurrent votes of the members of the Commission attending the meeting.

4 The adoption of any amendment relating to the Special Meeting of Parties or to the Advisory Committee shall require the affirmative votes of three-quarters of the Parties present and voting, including the concurrent votes of the members of the Commission attending the meeting.

5 An amendment shall enter into force for those Parties having deposited instruments of ratification, acceptance or approval thereof 30 days after the Depositary has received such instruments of ratification, acceptance or approval from all the members of the Commission.

6 Such amendment shall thereafter enter into force for any other Party 30 days after the Depositary has received its instrument of ratification, acceptance or approval thereof.

7 An amendment that has entered into force pursuant to this Article shall be without prejudice to the provisions of any Management Scheme approved before the date on which the amendment entered into force.

Article 65

Withdrawal

1 Any Party may withdraw from this Convention by giving to the Depositary notice in writing of its intention to withdraw. Withdrawal shall take effect two years after the date of receipt of such notice by the Depositary.

2 Any Party which ceases to be a Contracting Party to the Antarctic Treaty shall be deemed to have withdrawn from this Convention on the date that it ceases to be Contracting Party to the Antarctic Treaty.

3 Where an amendment has entered into force pursuant to Article 64(5), any Party from which no instrument of ratification, acceptance or approval of the amendment has been received by the Depositary within a period of two years from the date of the entry into force of the amendment shall be deemed to have withdrawn from the Convention on the date of the expiration of a further two year period.

4 Subject to paragraphs 5 and 6 below, the rights and obligations of any Operator pursuant to this Convention shall cease at the time its Sponsoring State withdraws or is deemed to have withdrawn from this Convention.

5 Such Sponsoring State shall ensure that the obligations of its Operators have been discharged no later than the date on which its withdrawal takes effect.

6 Withdrawal from this Convention by any Party shall not affect its financial or other obligations under this Convention pending on the date withdrawal takes effect. Any dispute settlement procedure in which that Party is involved and which has been commenced prior to that date shall continue to its conclusion unless agreed otherwise by the parties to the dispute.

Article 66

Notifications by the Depositary

The Depositary shall notify all Contracting Parties to the Antarctic Treaty of the following:

(a) signatures of this Convention and the deposit of instruments of ratification, acceptance, approval or accession;

(b) the deposit of instruments of ratification, acceptance or approval of any amendment adopted pursuant to Article 64;

(c) the date of entry into force of this Convention and of any amendment thereto;

(d) the deposit of declarations and notices pursuant to Articles 56 and 58;

(e) notifications pursuant to Article 18; and

(f) the withdrawal of a Party pursuant to Article 65.

Article 67

Authentic Texts, Certified Copies and Registration with the United Nations

1 This Convention of which the Chinese, English, French, Russian and Spanish texts are equally authentic shall be deposited with the Government of New Zealand which shall transmit duly certified copies thereof to all Signatory and Acceding States.

2 The Depositary shall also transmit duly certified copies to all Signatory and Acceding States of the text of this Convention in any additional language of a Signatory Acceding State which submits such text to the Depositary.

3 This Convention shall be registered by the Depositary pursuant to Article 102 of the Charter of the United Nations.

Done at Wellington this second day of June 1988.

In witness whereof, the undersigned, duly authorised, have signed this Convention.

ANNEX FOR AN ARBITRAL TRIBUNE

Article 1

The Arbitral Tribunal shall be constituted and shall function in accordance with this Convention, including this Annex.

Article 2

1 Each Party shall be entitled to designate up to three Arbitrators, at least one of whom shall be designated within three months of the entry into force of this Convention for that Party. Each Arbitrator shall be experienced in Antarctic affairs, with knowledge of international law and enjoying the highest reputation for fairness, competence and integrity. The names of the persons so designated shall constitute the list of Arbitrators. Each Party shall at all times maintain the name of at least one Arbitrator on the list.

2 Subject to paragraph 3 below, an Arbitrator designated by a Party shall remain on the list for a period of five years and shall be eligible for redesignation by that Party for additional five year periods.

3 An Arbitrator may by notice given to the Party which designated that person withdraw his name from the list. If an Arbitrator dies or gives notice of withdrawal of his name from the list or if a Party for any reason withdraws from the list the name of an Arbitrator designated by it, the Party which designated the Arbitrator in question shall notify the Executive Secretary promptly. An Arbitrator whose name is withdrawn from the list shall continue to serve on any Arbitral Tribunal to which that Arbitrator has been appointed until the completion of proceedings before that Arbitral Tribunal.

4 The Executive Secretary shall ensure that an up-to-date list is maintained of the Arbitrators designated pursuant to this Article.

Article 3

1 The Arbitral Tribunal shall be composed of three Arbitrators who shall be appointed as follows:

(a) The party to the dispute commencing the proceedings shall appoint one Arbitrator, who may be its national, from the list referred to in Article 2 of this Annex. This appointment shall be included in the notification referred to in Article 4 of this Annex.

(b) Within 40 days of the receipt of that notification, the other party to the dispute shall appoint the second Arbitrator, who may be its national, from the list referred to in Article 2 of this Annex.

(c) Within 60 days of the appointment of the second Arbitrator, the parties to the dispute shall appoint by agreement the third Arbitrator from the list referred to in Article 2 of this Annex. The third Arbitrator shall not be either a national of, or a person designated by, a party to the dispute, or of the the same nationality as either of the first two Arbitrators. The third Arbitrator shall be the Chairman of the Arbitral Tribunal.

(d) If the second Arbitrator has not been appointed within the prescribed period, or if the parties to the dispute have not reached agreement within the prescribed period on the appointment of the third Arbitrator, the Arbitrator or Arbitrators shall be appointed, at the request of any party to the dispute and within 30 days of the receipt of such request, by the President of the International Court of Justice from the list referred to in Article 2 of this Annex and subject to the conditions prescribed in subparagraphs (b) and (c) above. In performing the functions accorded him in this subparagraph, the President of the Court shall consult the parties to the dispute and the Chairman of the Commission.

(e) If the President of the International Court of Justice is unable to perform the functions accorded him in subparagraph (d) above or is a national of a party to the dispute, the functions shall be performed by the Vice-President of the Court, except that if the Vice-President is unable to perform the functions or is a national of a party to the dispute the functions shall be performed by the next most senior member of the Court who is available and is not a national of a party to the dispute.

2 Any vacancy shall be filled in the manner prescribed for the initial appointment.

3 In disputes involving more than two Parties, those Parties having the same interest shall appoint one Arbitrator by agreement within the period specified in paragraph 1(b) above.

Article 4

The party to the dispute commencing proceedings shall so notify the other party or parties to the dispute and the Executive Secretary in writing. Such notification shall include a statement of the claim and the grounds on which it is based. The notification shall be transmitted by the Executive Secretary to all Parties.

Article 5

1 Unless the parties to the dispute agree otherwise, arbitration shall take place at the headquarters of the Commission, where the records of the Arbitral Tribunal shall be kept. The Arbitral Tribunal shall adopt its own rules of procedure. Such rules shall ensure that each party to the dispute has a full opportunity to be heard and to present its case and shall also ensure that the proceedings are conducted expeditiously.

2 The Arbitral Tribunal may hear and decide counterclaims arising out of the dispute.

Article 6

1 The Arbitral Tribunal, where it considers that prima facie it has jurisdiction under this Convention, may:

(a) at the request of any party to a dispute, indicate such provisional measures as it considers necessary to preserve the respective rights of the parties to the dispute;

(b) prescribe any provisional measures which it considers appropriate under the circumstances, to prevent serious harm to the Antarctic environment or dependent or associated ecosystems.

2 The parties to a dispute shall comply promptly with any provisional measures prescribed under paragraph 1(b) above pending an award under Article 9 of this Annex.

3 Notwithstanding Article 57(1), (2) and (3) of this Convention, a party to any dispute that may arise falling within the categories specified in Article 58(1) (a) to (g) of this Convention may at any time, by notification to the other party or parties to the dispute and to the Executive Secretary in accordance with Article 4 of this Annex, request that the Arbitral Tribunal be constituted as a matter of exceptional urgency to indicate or prescribe emergency provisional measures in accordance with this Article. In such case, the Arbitral Tribunal shall be constituted as soon as possible in accordance with Article 3 of this Annex, except that the time periods in Article 3(1)(b), (c) and (d) shall be reduced to 14 days in each case. The Arbitral Tribunal shall decide upon the request for emergency provisional measures within two months of the appointment of its Chairman.

4 Following a decision by the Arbitral Tribunal upon request for emergency provisional measures in accordance with paragraph 3 above, settlement of the dispute shall proceed in accordance with Articles 56 and 57 of this Convention.

Article 7

Any Party which believes it has a legal interest, whether general or individual, which may be substantially affected by the award of an Arbitral Tribunal, may, unless the Arbitral Tribunal decides otherwise, intervene in the proceedings.

Article 8

The parties to the dispute shall facilitate the work of the Arbitral Tribunal and, in particular, in accordance with their law and using all means at their disposal, shall provide it with all relevant documents and information, and enable it, when necessary, to call witnesses or experts and receive their evidence.

Article 9

If one of the parties to the dispute does not appear before the Arbitral Tribunal or fails to defend its case, any other party to the dispute may request the Arbitral Tribunal to continue the proceedings and make its award.

Article 10

1 The Arbitral Tribunal shall decide, on the basis of this Convention and other rules of law not incompatible with it, such disputes as are submitted to it.

2 The Arbitral Tribunal may decide, ex aequo et bono, a dispute submitted to it, if the parties to the dispute so agree.

Article 11

1 Before making its award, the Arbitral Tribunal shall satisfy itself that it has competence in respect of the dispute and that the claim or counterclaim is well founded in fact and law.

2 The award shall be accompanied by a statement of reasons for the decision and shall be communicated to the Executive Secretary who shall transmit it to all Parties.

3 The award shall be final and binding on the parties to the dispute and on any Party which intervened in the proceedings and shall be complied with without delay. The Arbitral Tribunal shall interpret the award at the request of a party to the dispute or of any intervening Party.

4 The award shall have no binding force except in respect of that particular case.

5 Unless the Arbitral Tribunal decides otherwise, the expenses of the Arbitral Tribunal, including the remuneration of the Arbitrators, shall be borne by the parties to the dispute in equal shares.

Article 12

All decisions of the Arbitral Tribunal, including those referred to in Articles 5, 6 and 11 of this Annex, shall be made by a majority of the Arbitrators who may not abstain from voting.

MULTILATERAL

ENVIRONMENT AND NATURAL RESOURCES

Convention Relative to the Preservation of Fauna and Flora in Their Natural State, London, 1933

Done at London 8 November 1933

*Entered into force 14 January 1936**

Depositary: United Kingdom

Primary source citation: 172 LNTS 241

CONVENTION RELATIVE TO THE PRESERVATION OF FAUNA AND FLORA IN THEIR NATURAL STATE

THE GOVERNMENTS OF THE UNION OF SOUTH AFRICA, BELGIUM, THE UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND, EGYPT, SPAIN, FRANCE, ITALY, PORTUGAL, and THE ANGLO-EGYPTIAN SUDAN :

Considering that the natural fauna and flora of certain parts of the world, and in particular of Africa, are in danger, in present conditions, of extinction or permanent injury ;

Desiring to institute a special régime for the preservation of fauna and flora ;

Considering that such preservation can best be achieved (i) by the constitution of national parks, strict natural reserves, and other reserves within which the hunting, killing or capturing of fauna, and the collection or destruction of flora shall be limited or prohibited, (ii) by the institution of regulations concerning the hunting, killing and capturing of fauna outside such areas, (iii) by the regulation of the traffic in trophies, and (iv) by the prohibition of certain methods of and weapons for the hunting, killing and capturing of fauna ;

Have decided to conclude a Convention for these purposes, and have appointed as their Plenipotentiaries :

THE GOVERNMENT OF THE UNION OF SOUTH AFRICA :
Mr. C. T. TE WATER, High Commissioner for the Union of South Africa in the United Kingdom ;
Sir Arthur W. HILL, K.C.M.G., F.R.S., Director, Royal Botanic Gardens, Kew.

THE GOVERNMENT OF BELGIUM :
His Excellency Baron DE CARTIER DE MARCHIENNE, the Belgian Ambassador ;
Dr. VAN STRAELEN, Director of the Royal Natural History Museum, Brussels ;
Dr. J. M. DERSCHEID, Director of the King Albert National Park, Director of the International Office for the Protection of Nature.

THE GOVERNMENT OF THE UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND :
The Rt. Hon. the Earl of ONSLOW ;
Sir William F. GOWERS, K.C.M.G., formerly Governor of Uganda ;
Sir Arnold HODSON, K.C.M.G., Governor of Sierra Leone ;

* This Convention is not in force for the United States.

Mr. A. B. ACHESON, Colonial Office ;
Mr. B. F. WRIGHT, Official Secretary, Office of the High Commissioner for Southern Rhodesia.

THE GOVERNMENT OF EGYPT :
Dr. Ibrahim KADRY, Director of the Zoological Gardens, Giza.

THE GOVERNMENT OF SPAIN :
His Excellency Don Ramón PÉREZ DE AYALA, the Spanish Ambassador.

THE GOVERNMENT OF FRANCE :
M. Louis RUFFAT, Director of the Game Department of the Ministry of the Colonies.

THE GOVERNMENT OF ITALY :
Gr. Uff. Dr. Tullio ZEDDA, Secretary-General, Royal Ministry of the Colonies ;
Marchese Saverio PATRIZI.

THE GOVERNMENT OF PORTUGAL :
His Excellency Dr. Ruy Ennes ULRICH, the Portuguese Ambassador ;
Dr. Carlos MELLO GERALDES, Professor at the Higher Institute of Agronomy, Lisbon ;
Dr. Luis WITTNICH CARRISSO, Professor, University of Coimbra.

THE GOVERNMENT OF THE ANGLO-EGYPTIAN SUDAN :
Major W. R. BARKER, O.B.E., Game Warden.

Who, having communicated their full powers, found in good and due form, have agreed on the following provisions :

Article 1.

1. Save as regards the territories mentioned in paragraph 3 (i) of the present Article, any Contracting Government shall be at liberty, in accordance with the provisions of Article 13, to assume, in respect of any of its territories (including metropolitan territories, colonies, overseas territories, or territories under suzerainty, protection, or mandate), only those obligations of the Present Convention which are set out in Article 9, paragraphs 3, 8 and 9. The term "in part" in the present Convention shall be deemed to refer to those obligations.

2. The expression "territory" or "territories" in relation to any Contracting Government shall, for the purposes of Articles 2-12 of the present Convention, denote the territory or territories of that Government to which the Convention is applicable in full ; and, subject to the provisions of the preceding paragraph and of Article 13, the obligations arising under Articles 2-12 shall relate only to such territories.

3. The present Convention shall apply and shall be applicable in full to (i) all the territories (*i.e.*, metropolitan territories, colonies, overseas territories, or territories under suzerainty, protection, or mandate) of any Contracting Government which are situated in the continent of Africa, including Madagascar and Zanzibar ; (ii) any other territory in respect of which a Contracting Government shall have assumed all the obligations of the present Convention in accordance with the provisions of Article 13.

4. For the purposes of the present Convention the British High Commission Territories in South Africa shall be regarded as a single territory.

5. The present Convention shall not have any application, either in full or in part, to any metropolitan territory not situated in the continent of Africa, except where and to the extent to which a declaration effecting such application is made under Article 13.

Article 2.

For the purposes of the present Convention :

1. The expression "national park" shall denote an area *(a)* placed under public control, the boundaries of which shall not be altered or any portion be capable of alienation except by the competent legislative authority, *(b)* set aside for the propagation, protection and preservation of wild animal life and wild vegetation, and for the preservation of objects of esthetic, geological, prehistoric, historical, archæological, or other scientific interest for the benefit, advantage, and enjoyment of the general public, *(c)* in which the hunting, killing or capturing of fauna and the destruction or collection of flora is prohibited except by or under the direction or control of the park authorities.

In accordance with the above provisions facilities shall, so far as possible, be given to the general public for observing the fauna and flora in national parks.

2. The term "strict natural reserve" shall denote an area placed under public control, throughout which any form of hunting or fishing, any undertakings connected with forestry, agriculture, or mining, any excavations or prospecting, drilling, levelling of the ground, or construction, any work involving the alteration of the configuration of the soil or the character of the vegetation, any act likely to harm or disturb the fauna or flora, and the introduction of any species of fauna and flora, whether indigenous or imported, wild or domesticated, shall be strictly forbidden ; which it shall be forbidden to enter, traverse, or camp in without a special written permit from the competent authorities ; and in which scientific investigations may only be undertaken by permission of those authorities.

3. The expression "animal" or "species" shall denote all vertebrates and invertebrates (including non-edible fish, but not including edible fish except in a national park or strict natural reserve), their nests, eggs, egg-shells, skins, and plumage.

Article 3.

1. The Contracting Governments will explore forthwith the possibility of establishing in their territories national parks and strict natural reserves as defined in the preceding Article. In all cases where the establishment of such parks or reserves is possible, the necessary work shall be commenced within two years from the date of the entry into force of the present Convention.

2. If in any territory the establishment of a national park or strict natural reserve is found to be impracticable at present, suitable areas shall be selected as early as possible in the development of the territory concerned, and the areas so selected shall be transformed into national parks or strict natural reserves so soon as, in the opinion of the authorities of the territory, circumstances will permit.

Article 4.

The Contracting Governments will give consideration in respect of each of their territories to the following administrative arrangements :

1. The control of all white or native settlements in national parks with a view to ensuring that as little disturbance as possible is occasioned to the natural fauna and flora.

2. The establishment round the borders of national parks and strict natural reserves of intermediate zones within which the hunting, killing and capturing of animals may take place under the control of the authorities of the park or reserve ; but in which no person who becomes an owner, tenant, or occupier after a date to be determined by the authority of the territory concerned shall have any claim in respect of depredations caused by animals.

3. The choice in respect of all national parks of areas sufficient in extent to cover, so far as possible, the migrations of the fauna preserved therein.

Article 5.

1. The Contracting Governments shall notify the Government of the United Kingdom of Great Britain and Northern Ireland of the establishment of any national parks or strict natural reserves (defining the area of the parks or reserves), and of the legislation, including the methods of administration and control, adopted in connexion therewith.

2. They shall similarly notify any information relevant to the purposes of the present Convention and communicated to them by any national museums or by any societies, national or international, established within their jurisdiction and interested in those purposes.

3. The Government of the United Kingdom will communicate the information so received to the other Governments which have signed or acceded to the present Convention whether in full or in part.

Article 6.

In all cases in which it is proposed to establish in any territory of a Contracting Government a national park or strict natural reserve contiguous to a park or reserve situated in another territory (whether of that Government or of another Contracting Government), or to the boundary of such territory, there shall be prior consultation between the competent authorities of the territories concerned. Similarly, there shall be co-operation between those authorities subsequent to the establishment of the park or reserve, or where such a park or reserve is already established.

Article 7.

Irrespective of any action which may be taken under Article 3 of the present Convention, the Contracting Governments shall, as measures preliminary and supplementary to the establishment of national parks or strict natural reserves :

1. Set aside in each of their territories suitable areas (to be known as reserves) within which the hunting, killing, or capturing of any part of the natural fauna (exclusive of fish) shall be prohibited save *(a)* by the permission, given for scientific or administrative purposes in exceptional cases by the authorities of the territory or by the central authorities under whom the reserves are placed or *(b)* for the protection of life and property. Licences granted under Article 8, paragraphs 1 and 3, shall not extend to reserves.

2. Extend in these areas, so far as may be practicable, a similar degree of protection to the natural flora.

3. Consider the possibility of establishing in each of their territories special reserves for the preservation of species of fauna and flora which it is desired to preserve, but which are not otherwise adequately protected, with special reference to the species mentioned in the Annex to the present Convention.

4. Furnish information regarding the reserves established in accordance with the preceding paragraphs to the Government of the United Kingdom, which will communicate such information to all the Governments mentioned in Article 5, paragraph 2.

5. Take, so far as in their power lies, all necessary measures to ensure in each of their territories a sufficient degree of forest country and the preservation of the best native indigenous forest species, and, without prejudice to the provisions of Article 2, paragraph 2, give consideration to the desirability of preventing the introduction of exotic trees or plants into national parks or reserves.

6. Establish as close a degree of co-operation as possible between the competent authorities of their respective territories with the object of facilitating the solution of forestry problems in those territories.

7. Take the necessary measures to control and regulate so far as possible the practice of firing the bush on the borders of forests.

8. Encourage the domestication of wild animals susceptible of economic utilisation.

Article 8.

1. The protection of the species mentioned in the Annex to the present Convention is declared to be of special urgency and importance. Animals belonging to the species mentioned in Class A shall, in each of the territories of the Contracting Governments, be protected as completely as possible, and the hunting, killing, or capturing of them shall only take place by special permission of the highest authority in the territory, which shall be given only under special circumstances, solely in order to further important scientific purposes, or when essential for the administration of the territory. Animals belonging to the species mentioned in Class B, whilst not requiring such rigorous protection as those mentioned in Class A, shall not be hunted, killed, or captured, even by natives, except under special licence granted by the competent authorities. For this purpose a special licence shall denote a licence other than an ordinary game licence, granted at the discretion of the competent authority, and giving permission to hunt, kill, or capture one or more specimens of a specified animal or animals. Every such licence shall be limited as regards the period and the area within which hunting, killing, or capturing may take place.

2. No hunting or other rights already possessed by native chiefs or tribes or any other persons or bodies, by treaty, concession, or specific agreement, or by administrative permission in those areas in which such rights have already been definitely recognised by the authorities of the territory are to be considered as being in any way prejudiced by the provisions of the preceding paragraph.

3. In each of the territories of the Contracting Governments the competent authorities shall consider whether it is necessary to apply the provisions of paragraph 1 of the present Article to any species not mentioned in the Annex, in order to preserve the indigenous fauna or flora in each area, and, if they deem it necessary, shall apply those provisions to any such species to the extent which they consider desirable. They shall similarly consider whether it is necessary in the territory, concerned to accord to any of the species mentioned in Class B of the Annex the special protection accorded to the species mentioned in Class A.

4. The competent authorities shall also give consideration to the question of protecting species of animals or plants which by general admission are useful to man or of special scientific interest.

5. Nothing in the present Article shall (i) prejudice any right which may exist under the local law of any territory to kill animals without a licence in defence of life or property, or (ii) affect the right of the authorities of the territory to permit the hunting, killing, or capturing of any species *(a)* in time of famine, *(b)* for the protection of human life, public health, or domestic stock, *(c)* for any requirement relating to public order.

6. Each Contracting Government shall furnish to the Government of the United Kingdom information on the subject of the measures adopted in each of its territories in regard to the grant of licences, and in regard to the animals, the destruction or capture of which is, in accordance with paragraph 3 of this Article, not permitted except under licence. The Government of the United Kingdom will communicate any such information to all the Governments mentioned in Article 5, paragraph 2.

Article 9.

1. Each Contracting Government shall take the necessary measures to control and regulate in each of its territories the internal, and the import and export, traffic in, and the manufacture of articles from, trophies as defined in paragraph 8 of the present Article, with a view to preventing the import or export of, or any dealing in, trophies

other than such as have been originally killed, captured or collected in accordance with the laws and regulations of the territory concerned.

2. The export of trophies to any destination whatsoever shall be prohibited unless the exporter has been granted a certificate permitting export and issued by a competent authority. Such certificate shall only be issued where the trophies have been lawfully imported or lawfully obtained. In the event of an attempted export without any certificate having been granted, the authorities of the territory where this attempt takes place shall apply such penalties as they may think necessary.

3. The import of trophies which have been exported from any territory to which the present Convention is applicable in full, whether a territory of another Contracting Government or not, shall be prohibited except on production of a certificate of lawful export, failing which the trophy shall be confiscated, but without prejudice to the application of the penalties mentioned in the preceding paragraph.

4. The import and export of trophies, except at places where there is a Customs station, shall be prohibited.

5. *(a)* Every trophy consisting of ivory and rhinoceros horn exported in accordance with the provisions of the present Article shall be identified by marks which, together with the weight of the trophy, shall be recorded in the certificate of lawful export.

(b) Every other trophy shall, if possible, be similarly marked and recorded but shall in any event be described in the certificate so as to identify it with as much certainty as possible.

(c) The Contracting Governments shall take such measures as may be possible by the preparation and circulation of appropriate illustrations or otherwise to instruct their Customs officers in the methods of identifying the species mentioned in the Annex to the present Convention and the trophies derived therefrom.

6. The measures contemplated in paragraph 1 of the present Article shall include provisions that found ivory, rhinoceros horn and all trophies of animals found dead, or accidentally killed, or killed in defence of any person, shall, in principle, be the property of the Government of the territory concerned, and shall be disposed of according to regulations introduced by that Government, due regard being had to the native rights and customs reserved in the succeeding paragraph.

7. No rights of the kind specified in paragraph 2 of Article 8 are to be considered as being prejudiced by the provisions of the preceding paragraphs.

8. For the purposes of the present Article the expression "trophy" shall denote any animal, dead or alive, mentioned in the Annex to the Convention, or anything part of or produced from any such animal when dead, or the eggs, egg-shells, nests or plumage of any bird so mentioned. The expression "trophy" shall not, however, include any trophy or part of a trophy which by a process of *bona fide* manufacture, as contemplated in paragraph 1 of the present Article, has lost its original identity.

9. Each Contracting Government shall furnish to the Government of the United Kingdom information as to the measures taken in order to carry out the obligations of the present Article or any part of them. The Government of the United Kingdom will communicate any information so received to all the Governments mentioned in Article 5, paragraph 2.

Article 10.

1. The use of motor vehicles or aircraft (including aircraft lighter than air) shall be prohibited in the territories of the Contracting Governments, both (i) for the purpose of hunting, killing, or capturing animals, and (ii) in such manner as to drive, stampede, or disturb them for any purpose whatsoever, including that of filming or photographing ; provided, however, that nothing in the present paragraph shall affect the right of occupiers in respect of land occupied by them, or of Governments in respect of land utilised for public purposes, to use motor vehicles or aircraft for the purpose of driving away, capturing, or destroying animals found on such land in all cases where such ejection, capture, or destruction is not prohibited by any other provision of the present Convention.

2. The Contracting Governments shall prohibit in their territories the surrounding of animals by fires for hunting purposes. Wherever possible, the under-mentioned methods of capturing or destroying animals shall also be generally prohibited :

(a) The use of poison, or explosives for killing fish ;
(b) The use of dazzling lights, flares, poison, or poisoned weapons for hunting animals ;
(c) The use of nets, pits or enclosures, gins, traps or snares, or of set guns and missiles containing explosives for hunting animals.

Article 11.

It is understood that upon signature, ratification, or accession any Contracting Government may make such express reservations in regard to Articles 3-10 of the present Convention as may be considered essential.

Article 12.

1. Each Contracting Government shall furnish to the Government of the United Kingdom information as to the measures taken for the purpose of carrying out the provisions of the preceding Articles. The Government of the United Kingdom will communicate all the information so furnished to the Governments mentioned in Article 5, paragraph 2.

2. The Contracting Governments shall, wherever necessary, co-operate between themselves for the purpose of carrying out the provisions of the preceding Articles and to prevent the extinction of fauna and flora.

3. All the Governments which sign or accede to the present Convention shall be deemed to be Parties to the Protocol bearing this day's date, drawn up to facilitate the co-operation mentioned in the preceding paragraph.

Article 13.

1. Any Contracting Government may, at the time of signature, ratification, or accession, or thereafter, make a declaration assuming in respect of any one or more of its territories (including metropolitan territories, colonies, overseas territories, or territories under suzerainty, protection, or mandate) other than those mentioned in paragraph 3 (i) of Article 1, either all the obligations of the present Convention, or only those contained in Article 9, paragraphs 3, 8 and 9. If such declaration is made subsequent to ratification or accession it shall be effected by means of a notification in writing addressed to the Government of the United Kingdom, and shall take effect on the entry into force of the Convention or, if the Convention is already in force, three months after the date of the receipt of the notification by the Government of the United Kingdom.

2. It is understood that any Contracting Government may, by a single declaration made under the preceding paragraph, assume, in respect of some of its territories mentioned in that paragraph, all the obligations of the present Convention, and in respect of other such territories only the obligations contained in Article 9, paragraphs 3, 8 and 9.

3. Any Contracting Government which has made a declaration under the preceding paragraph assuming, in respect of any territory, only the obligations contained in Article 9, paragraphs 3, 8 and 9, may, at any subsequent time, by a notification in writing addressed to the Government of the United Kingdom, declare that such previous declaration shall henceforth be deemed to relate to all the obligations of the Convention in respect of the territory concerned ; and such subsequent declaration shall take effect on the entry into force of the Convention or, if the Convention is already in force, three months after the date of the receipt of the notification by the Government of the United Kingdom.

4. Any Contracting Government may at any time, by a notification in writing addressed to the Government of the United Kingdom, determine the application of the Convention to any territory or territories which have been the subject of a declaration under paragraphs 1 and 3 of the present Article, and the Convention shall thereupon cease to apply to the territory or territories mentioned in the notification one year after the date of its receipt by the

Government of the United Kingdom, provided that such notification shall in no case take effect until the expiry of the period of five years mentioned in Article 19, paragraph 1.

5. It is understood that if, as the result of a notification made under the preceding paragraph, there would remain no territories of the Contracting Government concerned to which the Convention would be applicable either in full or in part, such Government shall, instead of making the notification, proceed by way of denunciation under Article 19.

6. It is further understood that no notification made under paragraph 4 of the present Article, or otherwise, may purport to apply only the provisions of Article 9, paragraphs 3, 8 and 9, to any territory to which, at the time of the notification, the Convention applies in full.

7. The Government of the United Kingdom will inform all the Governments mentioned in Article 5, paragraph 2, of any notifications received under the preceding paragraphs of the present Article, of the date of their receipt and of their terms.

Article 14.

It is understood that no Government will sign, ratify, or accede to the present Convention unless it either has territories covered by Article 1, paragraph 3 (i), or makes or has made a declaration under Article 13 assuming in respect of one or more territories the obligations of the Convention either in full or in part.

Article 15.

The present Convention, of which the French and English texts shall both be equally authentic, shall bear this day's date and shall be open for signature until the 31st March, 1934.

Article 16.

The present Convention shall be subject to ratification. The instruments of ratification shall be deposited with the Government of the United Kingdom, which will notify their receipt and the date thereof, and their terms and the terms of any accompanying declarations or reservations to all the Governments mentioned in Article 5, paragraph 2.

Article 17.

At any time after the 31st March, 1934, the present Convention shall be open to accession by any Government of a metropolitan territory, by which it has not been signed, whether it has territories covered by Article 1, paragraph 3 (i), or not. Accessions shall be notified to the Government of the United Kingdom, which will inform all the Governments mentioned in Article 5, paragraph 2, of all notifications received, their terms and the terms of any accompanying declarations or reservations, and the date of their receipt.

Article 18.

1. After the deposit or notification of not less than four ratifications or accessions on the part of Contracting Governments having territories covered by Article 1, paragraph 3 (i), the present Convention shall come into force three months after the deposit or notification of the last of such ratifications or accessions, as between the Governments concerned. The Government of the United Kingdom will notify all the Governments mentioned in Article 5, paragraph 2, of the date of the coming into force of the Convention.

2. Any ratifications or accessions received after the date of the entry into force of the Convention shall take effect three months after the date of their receipt by the Government of the United Kingdom.

Article 19.

1. Any Contracting Government may at any time denounce the present Convention by a notification in writing addressed to the Government of the United Kingdom. Such denunciation shall take effect, as regards the Government making it, and in respect of all the territories of that Government to which the Convention shall then apply, either in full or in part, one year after the date of the receipt of the notification by the Government of the United Kingdom ; provided, however, that no denunciation shall take effect until the expiry of five years from the date of the entry into force of the Convention.

2. If, as the result of simultaneous or successive denunciations, the number of Contracting Governments bound, in respect of one or more of their territories, by all the obligations of the present Convention is reduced to less than four, the Convention shall cease to be in force as from the date on which the last of such denunciations shall take effect in accordance with the provisions of the preceding paragraph.

3. The Government of the United Kingdom will notify all the other Governments mentioned in Article 5, paragraph 2, of any denunciations so received and the date on which they take effect. The Government of the United Kingdom will also, if occasion arises, similarly notify the date on which the Convention ceases to be in force under the provisions of the preceding paragraph.

In witness whereof the above-named Plenipotentiaries have signed the present Convention.

Done in London, this eighth day of November, 1933, in a single copy, which shall remain deposited in the archives of the Government of the United Kingdom of Great Britain and Northern Ireland, which will transmit certified true copies thereof to all the Governments attending the Conference at which the present Convention has been drawn up, whether as participators or observers, as well as to any other Government to which the Government of the United Kingdom may deem it desirable to communicate a copy.

ANNEX.

CLASS A.

1. ANIMALIA.

(1) MAMMALIA.

Primates.

A 1. Gorilla—*Gorilla gorilla* (Savage & Wyman) (all subspecies).
Anthropopithecus gorilla Savage & Wyman, 1847, Bost. Journ. Nat. Hist. 5 : 419.

A 2. All Madagascar Lemurs—*Chiromyidae, Lemuridae* and *Indrisidae*.
(Note. — These families include numerous genera and species.)

Carnivora.

A 3. Aard Wolf—*Proteles cristatus* (Sparrman).
Viverra cristata Sparrman, 1785, Voy. : 177.

A 4. Fossa—*Fossa* Gray (all subspecies).
Fossa Gray, 1864, Proc. Zool. Soc. Lond. 1864 : 518.

Ungulata.

A 5. Giant Sable Antelope—*Hippotragus niger variani* Thomas.
Hippotragus niger variani Thomas, 1916, Proc. Zool. Soc. Lond. 1916 : 298.

A 6. Nyala—*Tragelaphus angasi* Angas.
Tragelaphus angasi Angas, 1848, Proc. Zool. Soc. Lond. 1848 : 89.

A 7. Mountain Nyala or Buxton's Bushbuck—*Tragelaphus buxtoni* Lydekker.
Tragelaphus buxtoni Lydekker, 1910, Nature 84 : 397.

A 8. Okapi—*Okapia johnstoni* (Sclater).
Equus (?) johnstoni Sclater, 1901, Proc. Zool. Soc. Lond. 1901 (1) : 50.

A 9. Barbary Stag—*Cervus elaphus barbarus* Bennett.
Cervus barbarus Bennett, 1837, List Anim. Gardens Zool. Soc. : 31.

A 10. Pigmy Hippopotamus—*Choeropsis liberiensis* (Morton).
Hippopotamus liberiensis Morton, 1849, J. Acad. Nat. Sci. Philad. (1) 4 : 232.
Hippopotamus minor Morton, 1844, Proc. Acad. Nat. Sci. Philad. 2 (1) : 15.

A 11. Mountain Zebra—*Hippotigris zebra* (Linnaeus) (all subspecies).
Equus zebra Linnaeus, 1758, Syst. Nat. ed. 10 1 : 74.

A 12. Wild Ass—*Asinus asinus* (Linnaeus) (all subspecies).
Equus asinus Linnaeus, 1758, Syst. Nat. ed. 10 1 : 73.

A 13. White Rhinoceros—*Rhinoceros simus* Burchell (all subspecies).
Rhinoceros simus Burchell, 1817, Bull. Soc. Philom. 1817 : 96.

A 14. Northern Hartebeest or Bubal—*Bubalis buselaphus* (Pallas).
Antilope buselaphus Pallas, 1766, Misc. Zool. : 7.

A 15. Abyssinian Ibex or Wali—*Capra walie* Rüppell.
Capra walie Rüppell, 1835, Neue Wirbelthiere Abyssin. 1 : 16.

A 16. Elephant—*Elephas africanus* Blumenbach.
Elephas africanus Blumenbach, 1779, Handbuch der Naturgeschichte ed. 5 : 125.
(NOTE. — This species to be included in Class A only in respect of specimens of which the tusks do not exceed 5 kilogrammes in weight each.)

A 17. Water Chevrotain—*Hyemoschus aquaticus* (Ogilby) (all subspecies).
Moschus aquaticus Ogilby, 1840, Proc. Zool. Soc. Lond. 1840 : 35.

(ii) AVES.

A 18. Whale-headed Stork or Shoe-bill—*Balaeniceps rex* Gould.
Balaeniceps rex Gould, 1851, Proc. Zool. Soc. Lond. 1851 : 1.

A 19. Bald-headed Ibis or Waldrapp—*Comatibis eremita* (Linnaeus).
Upupa eremita Linnaeus, 1758, Syst. Nat. ed. 10 1 : 118.

A 20. White-breasted Guinea Fowl—*Agelastes meleagrides* Bonaparte.
Agelastes meleagrides Bonaparte, 1849, Proc. Zool. Soc. Lond. 1849 : 145.

2. VEGETABILIA.

A 21. Welwitschia—*Welwitschia Bainesii* (Carrière).
Welwitschia Bainesii (Carrfère), 1933, Flora Capensis 5 (2) : Suppl. : 1-3.
(Formerly *Welwitschia mirabilis* Hooker fil.)

CLASS B.

ANIMALIA.

(i) MAMMALIA.

Primates.

B 1. Chimpanzee—*Anthropopithecus* Blainville (all subspecies).
Anthropopithecus Blainville, 1838, Ann. Franç. et Etrang. d'Anat. et Physiol. 2 : 360.

B 2. Colobus Monkey—*Colobus* Illiger (all subspecies).
Colobus Illiger, 1811, Prodomus : 69.

Ungulata.

B 3. Giant Eland or Lord Derby's Eland—*Taurotragus derbianus* (Gray) (all subspecies).
Boselaphus derbianus Gray, 1847, Ann. Mag. Nat. Hist. (1) 20 : 286.
Boselaphus oreas Gray 1847, List Osteol. Brit. Mus. : 155.

B 4. Giraffe—*Giraffa* Zimmermann (all subspecies).
Giraffa Zimmermann, 1780, Geogr. Gesch. 2 : 125.

B 5. White-tailed Gnu—*Connochaetes gnou* (Zimmermann).
Bos gnou Zimmermann, 1772, Spec. Zool. Geogr. : 372.

B 6. Yellow-backed Duiker—*Cephalophus sylvicultrix* (Afzelius).
Antilope sylvicultrix Afzelius, 1815, Nova Acta Soc. Upsala 6 : 265.

B 7. Jentink's Duiker—*Cephalophus jentinki* Thomas.
Cephalophus jentinki Thomas, 1892, Proc. Zool. Soc. Lond. 1892 : 417.
Antilope longiceps Jentink, 1885, Notes Leyden Mus. 7 : 272.

B 8. Beira—*Dorcotragus megalotis* (Menges).
Oreotragas megalotis Menges, 1894, Zool. Anz. 1894 : 131.

B 9. Dibatag or Clarke's Gazelle—*Ammodorcas clarkei* (Thomas).
Cervicapra clarkei Thomas, 1891, Ann. Mag. Nat. Hist. (6) 7 : 304.

B 10. Bontebok—*Damaliscus pygargus* (Palias).
Antilope pygarga Pallas, 1767, Spicil. Zool. fasc. 1 : 10.
Antilope dorcas Pallas, 1766, Misc. Zool. : 6 ; *nec Capra dorcas* Linnaeus.

B 11. Black Rhinoceros—*Rhinoceros bicornis* Linnaeus.
Rhinoceros bicornis Linnaeus, 1758, Syst. Nat. ed. 10 1 : 56.

B 12. Elephant—*Elephas africanus* Blumenbach.
Elephas africanus Blumenbach, 1779, Handbuch der Naturgeschichte ed. 5 : 125.
(The above species to be included in Class B in respect of specimens of which the tusks exceed 5 kilogrammes in weight each.)

Edentata.

B 13. Pangolin—*Manis* Linnaeus (all species).
Manis Linnaeus, 1758, Syst. Nat. ed. 10 1 : 36.

(ii) AVES.

B 14. Marabou—*Leptoptilos crumeniferus* (Lesson).
Ciconia crumenifera Lesson, 1831, Traité d'Orn : 585.

B 15. Abyssinian Ground Hornbill—*Bucorvus abyssinicus* (Boddaert).
Buceros abyssinicus Boddaert, 1783, Tabl. Planches enluminées : 48.

B 16. Ground Hornbill—*Bucorvus cafer* (Schlegel).
Buceros carunculatus cafer Schlegel, 1862, Mus. Pays-Bas 1 : 20.

B 17. Wild Ostrich—*Struthio* Linnaeus (all African subspecies).
Struthio Linnaeus, 1758, Syst. Nat. ed. 10 1 : 155.
NOTE. — The African subspecies are the following :
North African Ostrich—*S. camelus camelus* Linnaeus, 1758 ;
Southern Ostrich—*S. c. australis* Gurney, 1868 ;
Masai Ostrich—*S. c. massaicus* Neumann, 1898 ; and
Somali Ostrich—*S. c. molybdophanes* Reichenow, 1883.

B 18. Secretary Bird—*Sagittarius serpentarius* (Miller).
Falco serpentarius Miller, 1779, Icon. Anim. pl. 28.

B 19. Little Egret—*Egretta garzetta garzetta* (Linnaeus).
Ardea garzetta Linnaeus, 1766, Syst. Nat. ed. 12 1 : 237.

B 20. African Great White Egret—*Casmerodius albus melanorhynchus* (Wagler).
Ardea melanorhynchos Wagler, 1827, Syst. Av. Additamenta (last page).

B 21. African Yellow-billed Egret—*Mesophoyx intermedius brachyrhynchus* (Brehm).
Herodias (Egretta) brachyrynchos Brehm, 1858, J. Ornith. : 471.

B 22. Buff-backed Heron—*Bubulcus ibis* (Linnaeus).
Ardea ibis Linnaeus, 1758, Syst. Nat. ed. 10 1 : 144.

Protocol to the Convention Relative to the Preservation of Fauna and Flora in Their Natural State, London, 1933

Done at London 8 November 1933

*Entered into force 14 January 1936**

Primary source citation: 172 LNTS 270

PROTOCOL

At the moment of the signature of the Convention relative to the Preservation of Fauna and Flora in their Natural State which bears this day's date, the Undersigned, being duly authorised to that effect by their respective Governments, have agreed on the following provisions :

1. In order to facilitate co-operation for the purpose of preventing the extinction of natural fauna and flora and to examine the working of the above-mentioned Convention, as well as the question of any improvements which might be made to it, periodical international Conferences shall be held at appropriate intervals at which the Governments Parties to the Convention or on whose behalf the present Protocol has been signed shall be represented.

2. The first of such Conferences shall take place within four years from this day's date, and the arrangements in connection with it shall be made by the Government of the United Kingdom of Great Britain and Northern Ireland, which shall invite the Governments referred to in Article 1 of the present Protocol, together with any other Government whose presence may be considered desirable.

3. It is agreed that the matters to be discussed at the above-mentioned Conference shall include *(a)* the question of the exchange between Governments of lists of persons known to have been guilty of persistent infringements of game regulations, *(b)* the question of the exchange of information relating to infectious or contagious diseases of importance for the preservation of fauna or flora, or capable of affecting men as well as animals.

4. Subsequent Conferences shall be held at such dates and in accordance with such arrangements as may be made at the first Conference.

5. The present Protocol, of which the French and English texts shall both be equally authentic, shall bear this day's date, and shall come into force upon signature.

In faith whereof the Undersigned have signed the present Protocol.

Done in London, this eighth day of November, 1933, in a single copy, which shall remain deposited in the archives of the Government of the United Kingdom of Great Britain and Northern Ireland, which will transmit certified true copies thereof to all the Governments attending the Conference at which the present Protocol has been drawn up, whether as participators or observers, as well as to any other Government to which the Government of the United Kingdom may deem it desirable to communicate a copy.

* This Protocol is not in force for the United States.

Convention on Nature Protection and Wild Life Preservation in the Western Hemisphere, Washington, 1940

Done at Washington 12 October 1940

Entered into force 30 April 1942

Depositary: Organization of American States

Primary source citation: 3 Bevans 630, TS 981

Convention on Nature Protection and Wild Life Preservation in the Western Hemisphere

Preamble

The governments of the American Republics, wishing to protect and preserve in their natural habitat representatives of all species and genera of their native flora and fauna, including migratory birds, in sufficient numbers and over areas extensive enough to assure them from becoming extinct through any agency within man's control; and

Wishing to protect and preserve scenery of extraordinary beauty, unusual and striking geologic formations, regions and natural objects of aesthetic, historic or scientific value, and areas characterized by primitive conditions in those cases covered by this Convention; and

Wishing to conclude a convention on the protection of nature and the preservation of flora and fauna to effectuate the foregoing purposes, have agreed upon the following Articles:

Article I

Description of terms used in the wording of the Convention.

1. The expression NATIONAL PARKS shall denote:

Areas established for the protection and preservation of superlative scenery, flora and fauna of national significance which the general public may enjoy and from which it may benefit when placed under public control.

2. The expression NATIONAL RESERVES shall denote:

Regions established for conservation and utilization of natural resources under government control, on which protection of animal and plant life will be afforded in so far as this may be consistent with the primary purpose of such reserves.

3. The expression NATURE MONUMENTS shall denote:

Regions, objects, or living species of flora and fauna of aesthetic, historic or scientific interest to which strict protection is given. The purpose of nature monuments is the protection of a specific object, or a species of flora or fauna, by setting aside an area, an object, or a single species, as an inviolate nature monument, except for duly authorized scientific investigations or government inspection.

4. The expression STRICT WILDERNESS RESERVES shall denote:

A region under public control characterized by primitive conditions of flora, fauna, transportation and habitation wherein there is no provision for the passage of motorized transportation and all commercial developments are excluded.

5. The expression MIGRATORY BIRDS shall denote:

Birds of those species, all or some of whose individual members, may at any season cross any of the boundaries between the American countries. Some of the species of the following families are examples of birds characterized as migratory: Charadriidae, Scolopacidae, Caprimulgidae, Hirundinidae.

ARTICLE II

1. The Contracting Governments will explore at once the possibility of establishing in their territories national parks, national reserves, nature monuments, and strict wilderness reserves as defined in the preceding article. In all cases where such establishment is feasible, the creation thereof shall be begun as soon as possible after the effective date of the present Convention.

2. If in any country the establishment of national parks, national reserves, nature monuments, or strict wilderness reserves is found to be impractical at present, suitable areas, objects or living species of fauna or flora, as the case may be, shall be selected as early as possible to be transformed into national parks, national reserves, nature monuments or strict wilderness reserves as soon as, in the opinion of the authorities concerned, circumstances will permit.

3. The Contracting Governments shall notify the Pan American Union of the establishment of any national parks, national reserves, nature monuments, or strict wilderness reserves, and of the legislation, including the methods of administrative control, adopted in connection therewith.

ARTICLE III

The Contracting Governments agree that the boundaries of national parks shall not be altered, or any portion thereof be capable of alienation, except by the competent legislative authority. The resources of these reserves shall not be subject to exploitation for commercial profit.

The Contracting Governments agree to prohibit hunting, killing and capturing of members of the fauna and destruction or collection of representatives of the flora in national parks except by or under the direction or control of the park authorities, or for duly authorized scientific investigations.

The Contracting Governments further agree to provide facilities for public recreation and education in national parks consistent with the purposes of this Convention.

ARTICLE IV

The Contracting Governments agree to maintain the strict wilderness reserves inviolate, as far as practicable, except for duly authorized scientific investigations or government inspection, or such uses as are consistent with the purposes for which the area was established.

ARTICLE V

1. The Contracting Governments agree to adopt, or to propose such adoption to their respective appropriate law-making bodies, suitable laws and regulations for the protection and preservation of flora and fauna within their national boundaries, but not included in the national parks, national reserves, nature monuments, or strict wilderness reserves referred to in Article II hereof. Such regulations shall contain proper provisions for the taking of specimens of flora and fauna for scientific study and investigation by properly accredited individuals and agencies.

2. The Contracting Governments agree to adopt, or to recommend that their respective legislatures adopt, laws which will assure the protection and preservation of the natural scenery, striking geological formations, and regions and natural objects of aesthetic interest or historic or scientific value.

ARTICLE VI

The Contracting Governments agree to cooperate among themselves in promoting the objectives of the present Convention. To this end they will lend proper assistance, consistent with national laws, to scientists of the American Republics engaged in research and field study; they may, when circumstances warrant, enter into agreements with one another or with scientific institutions of the Americas in order to increase the effectiveness of this collaboration; and they shall make available to all the American Republics equally through publication or otherwise the scientific knowledge resulting from such cooperative effort.

ARTICLE VII

The Contracting Governments shall adopt appropriate measures for the protection of migratory birds of economic or aesthetic value or to prevent the threatened extinction of any given species. Adequate measures shall be adopted which will permit, in so far as the respective governments may see fit, a rational utilization of migratory birds for the purpose of sports as well as for food, commerce, and industry, and for scientific study and investigation.

ARTICLE VIII

The protection of the species mentioned in the Annex to the present Convention, is declared to be of special urgency and importance. Species included therein shall be protected as completely as possible, and their hunting, killing, capturing, or taking, shall be allowed only with the permission of the appropriate government authorities in the country. Such permission shall be granted only under special circumstances, in order to further scientific purposes, or when essential for the administration of the area in which the animal or plant is found.

ARTICLE IX

Each Contracting Government shall take the necessary measures to control and regulate the importation, exportation and transit of protected fauna or flora or any part thereof by the following means:

1. The issuing of certificates authorizing the exportation or transit of protected species of flora or fauna, or parts thereof.

2. The prohibition of the importation of any species of fauna or flora or any part thereof protected by the country of origin unless accompanied by a certificate of lawful exportation as provided for in Paragraph 1 of this Article.

ARTICLE X

1. The terms of this convention shall in no way be interpreted as replacing international agreements previously entered into by one or more of the High Contracting Powers.

2. The Pan American Union shall notify the Contracting Parties of any information relevant to the purposes of the present Convention communicated to it by any national museums or by any organizations, national or international, established within their jurisdiction and interested in the purposes of the Convention.

ARTICLE XI

1. The original of the present Convention in Spanish, English, Portuguese and French shall be deposited with the Pan American Union and opened for signature by the American Governments on October 12, 1940.

2. The present Convention shall remain open for signature by the American Governments. The instruments of ratification shall be deposited with the Pan American Union, which shall notify their receipt and the dates thereof, and the terms of any accompanying declarations or reservations, to all participating Governments.

3. The present Convention shall come into force three months after the deposit of not less than five ratifications with the Pan American Union.

4. Any ratification received after the date of the entry into force of the Convention, shall take effect three months after the date of its deposit with the Pan American Union.

ARTICLE XII

1. Any Contracting Government may at any time denounce the present Convention by a notification in writing addressed to the Pan American Union. Such denunciation shall take effect one year after the date of the receipt of the notification by the Pan American Union, provided, however, that no denunciation shall take effect until the expiration of five years from the date of the entry into force of this Convention.

2. If, as the result of simultaneous or successive denunciations, the number of Contracting Governments is reduced to less than three, the Convention shall cease to be in force from the date on which the last of such denunciations takes effect in accordance with the provisions of the preceding Paragraph.

3. The Pan American Union shall notify all of the American Governments of any denunciations and the date on which they take effect.

4. Should the Convention cease to be in force under the provisions of Paragraph 2 of this article, the Pan American Union shall notify all of the American Governments, indicating the date on which this will become effective.

In witness whereof, the undersigned Plenipotentiaries, having deposited their full powers found to be in due and proper form, sign this Convention at the Pan American Union, Washington, D.C., on behalf of their respective Governments and affix thereto their seals on the dates appearing opposite their signatures.

ANNEX

LISTS OF SPECIES REFERRED TO IN ARTICLE VIII OF THE CONVENTION

(Arranged according to date of certification)

DEPARTMENT OF STATE
WASHINGTON

January 27, 1941

The Honorable
LEO S. ROWE,
Director General of the Pan American Union.

MY DEAR DR. ROWE:

Reference is made to your letter of October 26, 1940, with which you sent to the Department a certified copy of the Convention on Nature Protection and Wild Life Preservation in the Western Hemisphere, which was opened for signature at the Pan American Union on October 12, 1940, and which includes the signatures of the plenipotentiaries of the countries for which the Convention was signed on that day.

In relation to the Annex mentioned in Article VIII of the Convention and in the third paragraph of your letter, I may advise you that the Department has been informed by Dr. Alexander Wetmore, Representative of the United States on the Inter-American Commission of Experts on Nature Protection and Wild Life Preservation, that it was intended by that Commission, in formulating the Convention, that the Government of each of the American Republics which becomes a party to the Convention shall have the authority, but that it shall not be mandatory upon it, to prepare and to transmit to the Pan American Union its own list of the species of flora or fauna, including migratory birds, which it considers, in respect of its own territory, should be included as a part of the Annex, and that copies of such lists as may be received by the Pan American Union from any of the signature Governments will be sent by the Union to each of the other signatory Governments.

It is understood by the Department that such lists are to be considered as flexible rather than permanent in character and may from time to time be modified or altered by the respective Governments by the addition or removal of such species from their several lists as changes in conditions may seem to them to warrant.

The Department encloses, for deposit with the original Convention and transmission to the other signatory Governments, a list of the species to be included for the United States of America in the Annex to the Convention on Nature Protection and Wild Life Preservation in the Western Hemisphere. The enclosed list is submitted in accordance with a recommendation made by a committee composed of representatives of interested offices of this Government, as communicated to the Department by Dr. Wetmore of the Smithsonian Institution.

Sincerely yours,

CORDELL HULL

[ENCLOSURE]

List of Species To Be Included for the United States of America in the Annex to the Convention on Nature Protection and Wild Life Preservation in the Western Hemisphere

Woodland Caribou	*Rangifer caribou sylvestris*
Sea Otter	*Enhydra lutris*
Manatee	*Trichechus latirostris*
Trumpeter Swan	*Cygnus buccinator*
California Condor	*Gymnogyps californianus*
Whooping Crane	*Grus americana*

Eskimo Curlew	*Phaeopus borealis*
Hudsonian Godwit	*Limosa haemastica*
Puerto Rican Parrot	*Amazona vittata*
Ivory-billed Woodpecker	*Campephilus principalis*

❧ ❧ ❧ ❧ ❧ ❧ ❧

[TRANSLATION]

EMBASSY OF THE UNITED STATES OF BRAZIL
Washington

October 2, 1940.

His Excellency Dr. L. S. Rowe,
Director General of the Pan American Union.

No. 121/661.03 (20)

MR. DIRECTOR GENERAL:

Supplementing my note no. 84 of June 15 last, I have the honor to enclose herewith a detailed list of animals and plants[1] considered by the Brazilian Government to be deserving of special or absolute protection. This list was drawn up by the National Game Board of the Ministry of Agriculture of Brazil.

2. The said list is for the purpose of complying with the decision made in May of this year by the Commission of Experts on Nature Protection and Wildlife Preservation.

I take the opportunity to renew to Your Excellency the assurances of my high consideration.

CARLOS MARTINS PEREIRA E SOUSA

[ENCLOSURE]

List of Animals Deserving of Protection—Report drawn up by the National Game Board
Wild Animals Considered as Deserving of Protection

I—Special Protection (animals protected by an annual closed season)

Grupo-Ordem	*Familia*	*Nome vulgar*	*Espécie*[2]
MAMMALIA			
Primates	Cebidae	Macacos, bugios	Todas as espécies
	Callitrichidae	Micos, saguis	Idem
Carnivora	Procyonidae	Ju pará, coati	Idem
	Mustelidae	Iraras	Idem exceto Cangambá (Mephitis spp.) (Conepatus spp.) Ariranha (Pteronura brasiliensis, Zimm.) e Lontra (Lutra paranensis, Rengger).
	Felidae	Onças, sussuaranas	Todas as espécies
	Canidae	Graxains, raposas	Idem exceto o Guará (canus jubatus).

[1] For a list of species of Brazilian flora, enclosed in a letter dated Oct. 10, 1941, see page 517.
[2] Where all species are protected, the words "todas as espécies" or "idem" appear; otherwise the particular species protected is named or, in some cases, "idem exceto" is given with a species, meaning that all species of that family are protected except the one or more specifically named. [Translator's note.]

I—Special Protection (animals protected by an annual closed season)—Continued

Grupo-Ordem	*Familia*	*Nome vulgar*	*Espécie*
MAMMALIA—Con.			
Rodentia	Cavidae	Cutia, capivara, paca, mocó.	Idem exceto a preá (cavea spp.)
	Dinomyidae	Pacarana	Dinomys branickii, Peters.
	Leporidae	Coelho	Sylvilagus spp.
	Echimiidae	Rato de espinho	Todas as espécies
	Coendidae	Ouriços	Todas as espécies
Ungulata	Dicotylidae	Queixada, catete	Idem
	Cervidae	Veados	Idem exceto o Cervo (Odocerus dichotomus)
Edentata	Dasypodidae	Tatus	Todas as espécies
Marsupialia	Didelfidae	Cuicas, gambás	Idem
AVES			
Tinamiformes	Tinamidae	Macucos, inhambús, jaós, perdizes, codornas.	Idem
Anseriformes	Anatidade	patos, marrecas	Idem exceto o pato arminho (Cygnus melanocoryphus) e cisne de pescoço preto (Coscoroba coscoroba)
Galliformes	Cracidae	Matuns, jacus	Todas as espécies
	Phasianidae	Capueira	Idem
Gruiformes	Rallidae	Saracuras	Idem
	Cariamidae	Seriema	Cariama cristata (L.)
Charadriiformes	Scolopacidae	Narcejas	Todas as espécies
	Recurvirostridae	Massaricão	Idem
Columbiformes	Columbidae	Pombas, rolas	Idem
REPTILIA			
	Boidae	Giboias, sucuris	Idem
	Tejidae, Iguanidae	Legartos	Idem

II—Absolute Protection

MAMMALIA			
Carnivora	Mustelidae	Ariranha, lontra, cangamá	Pteronura brasiliensis (Zim.) Lutra paranensis Rengger, Mephitis spp. e Conepatus spp.
Carnivora	Canidae	Guará	Chrysocyon jubatus, Desmarest.
	Pinnipedia	Cachorrinho	Icticyon venaticus, Lund.
Rodentia	Octodontidae	Ratão do banhado	Myocastor coypus, Molina.
Ungulata	Tapiridae	Anta	Tapirus americanus, Brisson.
	Cervidae	Cervo	Odocerus dichotomus.
Edentata	Bradypodidae	Preguiça	Todas as espécies.
	Mysmecophagidae	Tamanduá	Idem.
AVES			
Rheiformes	Rheidae	Ema	Rhea americana e subespécies.
Tinamiformes	Tinamidae	Macuco, perdiz, codornas.	Todas as espécies de Tinamus, Rynchotus e Nothura, em algumas regiões do país.

II—Absolute Protection—Continued

Grupo-Ordem	*Familia*	*Nome vulgar*	*Espécie*
AVES—Con.			
Sphenisciformes	Spheniscidae	Pinguim	Spheniscus magellanicus (J. R. Forster).
Colymbiformes	Colymbidae	Mergulhão	Todas as espécies
Procellariiformes	Diomedeidae	Albatroz	Idem
	Procellariidae	Procelária	Idem
	Hydrobatidae	Andorinhão	Idem
Pelecaniformes	Phaetontidae	Rabo de palha	Idem
	Pelecanidae	Pelicano	Pelecanus occidentalis (L.)
	Sulidae	Atobá	Todas as espécies
	Phalacrocoracidae	Biguá	Idem
	Anhingidae	Carará	Anhinga anhinga (Lin.)
	Fragatidae	João Grande	Todas as espécies
Ciconiiformes	Ardeidae	Garças, socós	Idem
	Cochleariidae	Arapapá	Cochlearius cochlearia (L.)
	Ciconiidae	Jaburú, magoari	Todas as espécies
	Threskiornithidae	Curicaca, Corocoró	Idem
	Phoenicopteridae	Flamengo	Idem
Anseriformes	Anhimidae	Anhuma, tahã	Idem
	Anatidae	Pato arminho, cisne de pescoço preto.	Cygnus melanocoryphus (Molina), Coscoroba coscoroba (Molina).
Falconiformes	Cathartidae	Urubu-rei	Sarcorhamphus papa (L.)
	Falconidae	Gavião carrapateiro, Harpia.	Milvago chimachima (Vieillot) e Harpia haypyja (L.)
Galliformes	Opisthocomidae	Cigana	Opisthocomus hoazin (Müller)
Gruiformes	Aramidae	Carão	Todas as espécies
	Osofhiidae	Jacamin	Idem
	Heliornithidae	Patinho dagua	Heliornis fulica (Boddaert)
	Eurypygidae	Pavãosinho	Eurypyga helias helias (Pallas)
Charadriiformes	Rostratulidae	- -	Nicticryphes semicollaris (Vieillot)
	Haematopodidae	Pirú-pirú	Haematopus ostralegus palliatus (Teminck)
	Charadriidae	Quero-quero	Todas as espécies
	Phalaropidae	- -	Steganopus tricolor (Vieillot)
	Burhinidade	Teo-teo	Burhimus bistriatus vocifer (L'Herminier).
	Laridae	Gaivotas	Todas as espécies
	Rhyncopidae	Talhamar	Idem
Columbiformes	Columbidae	Rolinhas	Idem
Cuculiformes	Cuculidade	Anús, sacís	Idem
Psittaciformes	Psittacidae	Papagaios, araras	Idem
Strigiformes	Tytonidae	Suindara	Idem
	Strigidae	Corujas	Idem
Caprimulgiformes	Nyctibiidae	Urutaus	Idem
	Caprimulgidae	Curiangos	Idem
Micropodiiformes	Micropodidae	Andorinhão	Idem
	Trochilidae	Beija-flor	Idem
Trogoniformes	Trogonidae	Surucuás	Idem
Coraciiformes	Alcedinidae	Martim pescador	Idem
	Momotidae	Juruvas	Idem

II—Absolute Protection—Continued

Grupo-Ordem	*Familia*	*Nome vulgar*	*Espécie*
AVES—Con.			
Piciformes	Galbulidae	Arirambás	Idem
	Bucconidae	Macurús	Idem
	Captonidae	Capitão de bigode	Idem
	Ramphastidae	Tucanos, araçaris	Idem
	Picidae	Pica-paus	Idem
Passeriformes	Todas	Bentevis, sanhaçôes, sabiás.	Idem
REPTILIA			
Chelonia	Destutinidae	Jaboti	Idem
ANFIBIOS			
Anuros	Todas	Sapos, rãs	Idem

III—Animals under study (observation)

MAMMALIA			
Primates	Cebidae	Macacos, bugios	Todas as espécies
	Calltrichidae	Micos, saguís	Idem
Carnivora	Canidae	Guará	Chrysocyon jubatus Desmarest.
Pinnipedia	Trichecidae	Peixe-boi	Trichechus inunguis Pelzeln.
Rodentia	Todas esceto a Octodontidae.	Caxinguelês, cutias, pacaranas, coelhos.	Todas exceto o Myocastor coypus (ratão do banhado) e a preá (Cavea spp.)
Ungulata	Tapiridae	Anta	Tapirus americanus Brisson.
	Cervidae	Veado	Odocoileus suaçuapara
Cetacea	Platanistidae	Boto	Inia spp.
	Delphinidae	Boto	Sotalia spp.
	Balaenidae	Baleia	Todas as espécies
Edentata	Dasypodidae	Tatus	Priodontes gigas (tatu canastra) e Cabassus unicinctus Linn. (tatu bola)
AVES			
Charadriiformes	Jacanidae	Piaçoca	Todas as espécies
Gruiformes	Heliornithidae	Patinho dagua	Heliornis fulica (Boddaert)
	Cariamidae	Seriema	Cariama cristata (L.)
Rheiformes	Rheidae	Ema	Rhea americana e subespécies.
Falconiformes	Falconidae	Acauã	Herpetotheres cachinnans queribundus-Bangs & Penard.
REPTILIA			
Chelonia	Cinosternidae	Tartaruga	Todas as espécies
	Pelomedusidae	Tartaruga	Idem
	Chelydae	Tartaruga	Idem

IV—Wild Animals protected by the annual closed season (special protection) the hunting of which is permitted when, at any time, they become harmful.

Grupo-Ordem	*Familia*	*Nome vulgar*	*Espécie*
MAMMALIA			
Primates	Cebidae	Macacos	Todas as espécies
Carnivora	Procyonidae	Coati	Idem
	Mustelidae	Iraras	Idem
	Felidae	Onças	Idem
	Canidae	Guaxinim	Idem
Rodentia	Caviidae	Capivara	Idem
Ungulata	Dicotylidae	Queixada, catete	Idem
Marsupialia	Didelfidae	Gambá	Idem
AVES			
Gruiformes	Cariamidae	Seriema	Cariama cristata (L.)
Falconiformes	Cathartidae	Urubú	Todas as espécies exceto o Urubú-rei (Sarcorhamphus papa) (L.)
	Falconidae	Gavião	Todas as espécies exceto o Carrapateiro (Milvago chimachima) (Vieil.)
Strigiformes	Strigidae	Caburézinho	Todas as espécies
Passeriformes	Todas	Bentevis, sanhaços, sabiás, chopins	Todas as espécies granívoras e frugívoras

[TRANSLATION]

LEGATION OF BOLIVIA
WASHINGTON

FEBRUARY 11, 1941.

DR. LEO S. ROWE,
Director General of the Pan American Union,
Washington, D.C.

MR. DIRECTOR GENERAL:

With reference to article VIII of the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere, I have the pleasure of transmitting herewith a list of Bolivian fauna and flora deserving of protection. The aforesaid list has been selected by the Ministry of National Economy of my country.

In accordance with the opinion expressed by the Department of State of the United States of America, this Legation considers that the lists which are to be included as part of the annex should be considered as "flexible rather than permanent in character and may from time to time be modified or altered by the respective Governments by the addition or removal of such species from their several lists as changes in conditions may seem to them to warrant."

I take the opportunity to renew to you the assurances of my distinguished consideration.

LUIS GUACHALLA

[ENCLOSURE]

Bolivian Native Fauna Deserving of Protection

1. Chinchilla común . . . . . "Eriomy Chinchilla"
2. Vicuña . . . . . "Anchenia Vicuña"
3. Sapo . . . . . "Phrynscus Nigricans"
4. Chercán . . . . . "Cistothorus Músculus Rex"
5. Hornero . . . . . "Furnarius Rufus"
6. Golondrina común . . . . . "Hirundo Rústica"
7. Avestrúz . . . . . "Rhea Americana"
8. Oso Hormiguero . . . . . "Ursus Furmicaris"
9. Tero-tero . . . . . "Belonopterus Cayennensis"
10. Chorlito . . . . . "Totanus Melanoleúcus"
11. Gaviota . . . . . "Larus Serranus" (Tsch)
12. Calandria . . . . . "Minus Modulator"
13. Chingolo o Pichitanca . . . . . "Lenotrichia Pileta"
14. Tordo . . . . . "Molotrus Bonariensis"
15. Carpintero . . . . . "Campephilus Magellanicus" (Gm)
16. Gallinazo . . . . . "Catharista Atrata"
17. Carancho . . . . . "Polyborus Tarsus" (Mol)
18. Testigo . . . . . "Pitangus Bolivianus"
19. Negrillo Ovejero . . . . . "Motothrus Purpurácens"
20. Garza Azúl o Real . . . . . "Ardea Caerulea" (Taez)
21. Garza Blanca grande . . . . . "Herodias Egretta" (Wila)

Bolivian Native Flora Deserving of Protection

1. Quina . . . . . "Cinchona Officinalis"
2. Molle . . . . . "Schinus Molle"
3. Pino Tarijeño . . . . . "Podocarpus Parlatorci"
4. Arbol de la Goma . . . . . "Elbea Elastica"
5. Keñua . . . . . "Poblepis Tarapacana"
6. Tipa . . . . . "Tipuana Speciosa"
7. Tarco . . . . . "Tecoma Leocoxyla"
8. Orcho Karalagua . . . . . "Cárica Lanceslata"
9. Algarrobo . . . . . "Prosopis Dulcis"

[TRANSLATION]

LEGATION OF NICARAGUA
WASHINGTON, D.C.

APRIL 3, 1941.

The Honorable Dr. L. S. ROWE,
Director General,
Pan American Union,
Washington, D.C.

No. 412.

MR. DIRECTOR GENERAL:

In the absence of the Minister I have the pleasure of referring to your kind communication dated October 26, 1940 relative to the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere, which was deposited in the Pan American Union and opened for the signature of the Governments of the American republics on October 12, 1940.

We have just received a note from the Minister of Foreign Relations of Nicaragua forwarding to us a list of species of Nicaraguan fauna and flora which should be included in the respective annex referred to in article VIII of the said convention, which I am pleased to send you herewith.

I am, Mr. Director General, with assurances of my consideration,
Very respectfully yours,

ENID EDER PERKINS
Chancelor

[ENCLOSURE]

Fauna

QUETZAL	Pharomacrus Mocinno	Familia Pájaros
PERDIZ	Lagopus rupertris	" Gallinas
GARZA	Ardea aegretti	" Ardeidas
COMADREJA	Mustela vulgaris	" Mustélidas
VENADO	Dorcelophus clavatus	" Cervidae
ARMADO	Dasypus gymnuras	" Dasypodidae
GUARDATINAJA	Coelogenys Paca	" Procynidae
PIZOTE	Nasua marica	" Suidaes

Flora

GUAYACAN	Guaiacum sanctum	Familia Zigofileas
ROBLE	Platymiscium polystachyum	" Dalbergieas
CEDRO	Cedrela odorata	" Cedreláceas
CAOBA	Swietenia mahogoni	" Cedreláceas
OCOTE	Pinus termifolia	" Coníferas
AGUACATE	Persea gratísima	" Lauráceas
CAUCHO	Hevea guyanensis	" Acalifeas

[TRANSLATION]

EMBASSY OF THE ARGENTINE REPUBLIC
WASHINGTON, D.C.

May 8, 1941.

DR. LEO S. ROWE,
Director General of the Pan American Union,
Washington, D.C.

U.P. No. 8

MR. DIRECTOR GENERAL:

I have the pleasure of writing to you, Mr. Director General, to inform you that, by decree no. 89180 of the Executive power dated April 23 last, the Government of my country has approved the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere and the undersigned has received instructions to proceed to sign the aforesaid convention with the following reservation:

"The existing wealth in the National Parks may only be exploited for commercial purposes in those regions which, though lacking the necessary characteristics to be considered as such, have been incorporated into their system solely in order to maintain uniformity of the action to be carried on within them and when such exploitation will not alter the general idea of the law which defines them and when they are large enough to maintain the principle of the regional development indicated by the need of each country."

At the same time I must point out to you, Mr. Director General, that the list of species of flora and fauna drawn up for the effects of article VIII of the convention, which is enclosed with this note, will not have a permanent character and may be changed and revised by the Government of my country.

I take the opportunity, Mr. Director General, to assure you of my distinguished consideration.

FELIPE A. ESPIL

[ENCLOSURE]

Animal Species in the National Parks and Reservations of Argentina Deserving of Protection

Mammals

1. Huemul	"Hippocamelus bisulcus"
2. Guanaco	"Lama guanicoe"
3. Pudu	"Pudu pudu"
4. Zorro gris	"Pseudalopex gracilis"
5. Zorro Colorado	"Pseudalopex culpaeus"
6. Zorrino patagónico	"Conepatus Humboldtii"
7. Zorro común	"Canis Azarae"
8. Puma	"Puma concolor"
9. Gato pajero	"Lynchailurus pajeros"
10. Gato montés	"Oncifelis geofriyi"
11. Pichi de la Patagonia	"Zaëdyus pichiy caurinus"
12. Tucu-Tuco de Santa Cruz	"Ctenomys sericeus"
13. Cururu de Magallanes	"Ctenomys magellanicus"
14. Rata nutria	"Myocastor coypus"
15. Huillin	"Lutra provocax"
16. Liebre patagónica	"Dolichotis australis"
17. Vizcacha patagónica	"Lagidium boxi"
18. Hurón patagónico	"Lyncodon patagonicus"
19. Tucu-Tuco de las pampas	"Ctenomys mendocinus"

Animal Species in the National Parks and Reservations of Argentina Deserving of Protection—Continued

Birds

1. Condor	"Vultur gryfus"
2. Aguila blanca	"Geranoaetus malanoleucus australis"
3. Aguila coronada	"Harpyhalietus coronatus"
4. Halcón	"Cerchneis sparveria cinnamomina"
5. Chimango	"Milvago chimango"
6. Carancho	"Polyborus plancus"
7. Gavilán	"Circus cinereus y Circus Buffoni"
8. Jote	"Coragyps atratus"
9. Gaviota	"Larus maculipennis y Larus Dominicanus"
10. Avutarda	"Cloephaga picta y Colephaga Rubidicens Sclater"
11. Gallaretas	"Fulica armillata, F. leucoptera y F. rufifrons"
12. Tero	"Belonopterus chilensis"
13. Bandurria	"Theristicus caudatus malanopis"
14. Flamenco	"Phoenicopterusruber chilensis"
15. Cisne de cuello negro	"Cygnus Malancoriphus"
16. Garza mora	"Arcea cocoi"
17. Garza blanca grande	"Casmerodius albus egretta"
18. Choique-aveztruz petizo	"Pterocnemia pennata"
19. Perdiz chica de la Patagonia	"Nothura Darwini"
20. Torcaza araucana	"Columba araucana"
21. Pato vapor	"Tachyres patachonicus"
22. Pato de anteojos	"Anas specularis"

Plant Species in the National Parks and Reservations of Argentina Deserving of Protection

1. Ciprés	"Libocedrus chilensis"
2. Alerce	"Fitzroya patagónica"
3. Coihue	"Nothofagus Dombeyi"
4. Raulí	"Nothofagus procera"
5. Roble pellín	"Nothofagus obliqua"
6. Araucaria	"Araucaria araucana"
7. Lenga	"Nothofagus pumilio"
8. Nire	"Nothofagus antárctica"
9. Radal	"Lomatia obliqua"
10. Arrayan	"Myrceugenia apiculata"
11. Calafate	"Berberis buxifolia"
12. Guindo	"Nothofagus betuloides"
13. Palo santo	"Flotovia diacanthoides"
14. Palo pichi	"Fabiana imbricata"
15. Laurel	"Laurelia serrata"
16. Notro	"Embothrium coccineum"
17. Maqui	"Aristotelia maqui"
18. Maiten	"Maytenus boaria"
19. Michai	"Berberis Darwinii"
20. Mañiu	"Sexagotea conspicua"
21. Maiten chico	"Maytenus disticha"
22. Retamo	"Lippia juncea"
23. Funique	"Lomatia ferruginea"
24. Grosellero	"Ribes densiflora"

[TRANSLATION]

EMBASSY OF ECUADOR
WASHINGTON

MAY 6, 1941.

Dr. L. S. ROWE,
Director General of the Pan American Union,
Washington, D. C.

MR. DIRECTOR GENERAL:

I take pleasure in transmitting to you herewith the list of Ecuadoran zoological species which, for the effects of the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere, should appear in the annex to the said convention.

I am, with my distinguished consideration, your obedient servant,

C. E. ALFARO
Ambassador of Ecuador

[ENCLOSURE]

Fauna of Ecuador—Species Which Are To Be Protected as They Are Tending To Become Extinct

Mammals

Simians of the *Hapale, Midas* and *Callitrix* genera. These strange little monkeys, commonly called "Titis", are going farther and farther into our eastern forests since they are sought to be sold to foreign tourists who buy them at a good price. Some species are already quite rare.

Nutria (Lutra sp). A beautiful species lives on rivers containing fish and is hunted for the commercial value of its skin. This native species is tending to disappear. It is advisable to see to its conservation.

Oso hormiguero (Myrmecophaga Jubata). A very important zoological species, scattered along the coast. It is sought for its skin.

Llama (Auchenia llama). Native to the high regions. In its wild state it is almost extinct.

Birds

Condor (Sarcorhamphus gryphus). It is a magnificent bird which is tending to disappear in our territory and the hunting of it should absolutely be prohibited. I have seen lots of embalmed specimens sold to foreign travellers, passing through Guayaquil.

Guacamayos (Ara sps.) [macaws] and Tucanes (Rhamphastos Ptereglossus sps.) [toucans]. These genera have some purely Ecuadoran species. Because of their attractive appearance and multicolored plumage they are sought for commercial purposes.

Paujé (Urax pauxi). This beautiful gallinacean is almost extinct at present. It is another type which must be protected.

Pájaros (Passeres) [parrots]. They are hunted without restriction. It is specially advisable to take severe measures to stop the war to the death which is being waged against the splendid little birds known as "Chupaflores", "Quindes" or "Colibríes" (Trochilidae) for the purpose of putting them on the market. Throughout the interior there are many hunters who keep large stocks of such small birds embalmed to offer them to travellers passing through Ecuadoran towns. As a result, some types of regional quindes are becoming constantly rarer.

Garzas (Ardea sp.) [herons]. These wading birds prefer the proximity of coastal rivers and swamps. They are killed because of the value of their plumage. The most sought-after forms are the *Ardea egretta* and the *Ardea candissima.*

Fish

With respect to the protection of our fish, it would be well first of all rigidly to forbid fishing with "barbasco" (plants of the Jacquinia and Piscidia genera), a process which kills the spawn and fry. Many sea fish of economic importance come up the coastal rivers at a certain time of the year in search of warmer waters or sheltered places to lay their eggs and in this period—knowing their habits—fishing should be forbidden. No studies have been made in Ecuador to determine the months in which the fish spawn.

List of Ecuadoran Zoological Species Which Should Be Included in the Annex to the Convention

REPTILES	REPTILES	
Galápago	Galápagos Tortoise	Testudo
todas las especies	All species	All Species
Iguana de tierra	Land Iguana	*Conolophus subscristatus*
AVES	BIRDS	
Pájaro niño	Galápagos Penguin	*Spheniscus mendiculus*
Cuervo marino	Flightless Cormorant	*Nannopterum harrisi*
Flamenco rosado	Flamingo	*Phoenicopterus ruber*
MAMIFEROS	MAMMALS	
Lobo fino	Galápagos Fur Seal	*Arctocephalus galapagoensis*

[TRANSLATION]

MINISTRY OF AGRICULTURE
REPUBLIC OF EL SALVADOR
C.A.
NATIONAL PALACE
SAN SALVADOR (CUSCATLÁN)

April 19, 1941

Dr. L. S. ROWE,
President of the Pan American Union,
Washington, D.C., U.S.A.

No. 436

Subject: Transmission of the list of birds which deserve protection in El Salvador.

In conformity with article VIII of the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere, I have the honor to forward to you the enclosed list of avifauna of El Salvador, that it may be included in the respective annex.

I must not fail to inform you that, in conformity with what the convention under reference has determined in the matter, the aforesaid list is subject to additions, modifications, and eliminations, as circumstances may warrant.

With the assurances of my highest consideration, I am,
Your obedient servant,

JOSÉ TOMÁS CALDERÓN

[ENCLOSURE]

List of Avifauna of El Salvador Which Should Be Included in the Annex to the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere

Species Which Should Have Total Protection

Orden	*Familia*	*Especie**	*Nombres vulgares*
Ciconiformes	Ardeidae	Todas	Garzas
	Cochlearidae	Todas	Garzas
	Ciconidae	Todas	Garzones
Cuculiformes	Cuculidae	Crotophaga sulcirostris, sulcirostris Swain.	Pijuyo
Trogoniformes	Trogonidae	Pharamochrus mocinno, mocinno De La Llave	Quetzal

Species With Partial Protection

Orden	*Familia*	*Especie*	*Nombres vulgares*
Anseriformes	Anátidae	Todas	Patos, pishishe, etc.
Galliformes	Phasianidae	Todas	Faisanes, Perdices, Codornices, etc.

Species With Total Protection Except When They May Cause Damage

Orden	*Familia*	*Especie*	*Nombres vulgares*
Cuculiformes	Tytomidae	Tyto alba Guatemalae (Ridway)	Tecolote
Psittaciformes	Psittacidae	Todas	Loras, Pericos.
Passeriformes	Todas	Todas	Golondrianas, Chíos, Guacalchías Dichosofuí. et.

Under Study for Regulation Thereof

Orden	*Familia*	*Especie*	*Nombres vulgares*
Falconiformes	Todas	Todas	Zopilote, etc.

*Where the word "todas" appears, it means all species of that family.

[TRANSLATION]

LEGATION OF GUATEMALA
WASHINGTON, D.C.

MAY 6, 1941.

Dr. LEO S. ROWE, *Director,*
Pan American Union
Washington, D.C.

MR. DIRECTOR:

I have the pleasure of sending you herewith the list of species which the Government of Guatemala desires to protect in conformity with the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere.

In depositing this list, the Government of Guatemala wishes to declare that it shares the opinion expressed by the Secretary of State of the United States in the letter which he sent to you on January 27, 1941 to the effect that these lists should not be considered permanent, but rather flexible and subject to changes, as circumstances may warrant.

I am, your obedient servant,

ADRIÁN RECINOS

[ENCLOSURE]

List of Species Which Are To Be Included for Guatemala in the Annex to the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere

Mammals

Quadrumana	
Mono saraguate	Mycetes villosus
Mico	Ateles vellerosus
Cheiroptera	
Musaraña	Sorex Veraepacis
Carnivora	
Puma	Felis concolor
Tejón	Procyon lotor
Micoleón o perro de monte	Cercoleptes caudivolvulus
Perro de agua	Lutra felina
Sirenia	
Manatí	Manatus latirostris (australis)
Ungulata	
Venado	Cariacus virginianus
Venado guisisil o cabrito de monte	Cariacus rufinus
Rodentia	
Tepezcuintle	Coelogenys paca (Geomys paca)

Indigenous Birds

Senzontle de la tierra	Turdus Grayi
"	" Swainsoni
"	" Rufitorques
" pico de oro	Catharus Melpomenae
" mexicano	Mimus gilvus
Pito Real	Myadestes unicolor
Guardabarranca	" obscurus
Terciopelo	Ramphocoelus passerinae
Alcalde Mayor	Ramphocoelus sanguinolenta
Cuatro colores	Cyanospiza ciris
Ruiz morado	Guiraca coerulea
Oropéndola	Ostinops monctezumae
Azacuan	Buteo Suainsoni
Quetzal	Pharomacrus mocino
Martín pescador	Ceryle alcyon
Pavo dorado del Petén	Meleagris ocellata
Pavo de cacho del volcán de fuego	Oreophasis derbianus
Cigueña blanca	Mycteria americana
Alcaraván	Recuernes histriatus
Garza real blanca patas amarillas	Ardea aegretta
Garza de penacho obscuro y celeste pico negro	Ardea agami
Garza azul	Ardea coerulea
Garza blanca, patas negras y pico amarillo	Ardea candidissima

List of Species Which Are To Be Included for Guatemala in the Annex to the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere

Indigenous Birds—Continued

Garzón café	Ardea herodias
Garza tres colores	Ardea tricolor
Garza roja	Ardea rufa
Garza listada	Ardea virescens
Garza de Atitlán	Ardetta exilis
Garza rosada	Platalea ajuja
Garzón crema	Tantalus loculator
Garza plomiza	Nycticorox griseus
Garza azulada	Nyctanassa violacea
Garza petenera	Trigrisoma cabanisi
Garza de Cobán	Botaurus lentiginosus
Pelícano	Leptopelicanus fuscus
Gaviota	Atricilla atricilla
Pijije	Dendrocigna autumnalis
Gallareta	Mareca americana

Trees and Species of the Flora of Guatemala

Aliso	Alnus Arguta (Sch.)
Acerola	Malpighia edulis (Donn. Smith)
Balsa	Ochroma limonensis (Rowlee)
Cacao volador	Virola guatemalensis (Hems.)
Coralillo	Citharexylum Donnell Smithii (Greenman)
Castaño	Sterculia apetala (Jacq.)
Esquizuchitl	Bourreria formosa (D.C.)
Guayacán	Tebebuia guayacán (Hems.)
Guapinol	Hymenaea courbaril (L)
Ingerto zapote	Calocarpum virides (Pittier)
Ilamo-anoma blanca	Annona diversifolia (Safford)
Jacote de corona	Spondias purpurea–L–
Matazano	Casimiroa edulis (La Llave)
Manzanilla	Crategus mexicana (Moc. & Sesse)
Matazano cimarron	Omphalea oleífera (Hems.)
Orejuelo	Cymbopetalum penduliflorum (Baill)
Palo de rosa	Dalbergia stevensonii (Stand.)
Primavera-Palo blanco	Tebebuía Donnell Smithii (Rose)
Palo de leche	Couma guatemalensis (Stand.)
Pinabete	Abies religiosa (H.B.K.)
Palo de Mico	Pterocarpus Septentrionalis (Stand.)
Tempisque	Sideroxylon tempisque (Pittier)
Tayuyo	Cheiranthodendrum penduliflorum (Baill)
Zapotillo	Achras Chicle (Pittier)

[TRANSLATION]

EMBASSY OF MEXICO
WASHINGTON, D.C.

May 9, 1941

Dr. L. S. ROWE,
Director General of the Pan American Union,
Washington, D.C.

No. 2498
File No. 73–0/370(7 :8)/1

MR. DIRECTOR GENERAL:

I beg to send you, enclosed herewith, the list of species which are to be included, on the part of my Government, in the annex to the eighth article of the convention on Nature Protection and Wildlife Preservation in the Western Hemisphere, signed at Washington November 20, 1940.

I renew to you the assurances of my respectful consideration.

F. CASTILLO NÁJERA
Ambassador

[Enclosure]

List of Species Which Are To Be Included for Mexico in the Annex to the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere

Berrendo	Antilocapra mexicana Merr.
Borrego salvaje	Ovis montana Cuvier.
Castor	Castor canadensis frondator.
Tapir	Tapirus araericanus.
Aguila real	Aguila chrysactus Lin.
Garza blanca	Garzeta candidissima.

[TRANSLATION]

LEGATION OF THE DOMINICAN REPUBLIC
WASHINGTON

APRIL 16, 1941.

Dr. L. S. ROWE,
Director General of the
Pan American Union,
Washington, D.C.

MR. DIRECTOR GENERAL:

On instructions from my Government, I have the honor to send you, under this same cover, a list of the species of Dominican fauna subject to control, in conformity with the provisions of the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere.

I avail myself of this opportunity, Mr. Director General, to renew to you the assurances of my most distinguished consideration.

JULIO VEGA BATLLE
Chargé d'Affaires a. i.

[ENCLOSURE]

List of Species Which Are To Be Included for the Dominican Republic in the Annex to the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere—Provisional List of Species Which Cannot Be Hunted or Captured Without Previous Official Permit

MAMIFEROS	
Jutía o Hutía	Plagiodontia hylaeum, Mill
Jutía de Tierra o Solenodonte	Solenodon paradoxus, Brandt
REPTILES	
Sapos, ranas	Hylas spp.
Sapo de Surinam	Bufo marinus
AVES.	
PELECANIFORMES	
Alcatraz	Pelecanus occidentalis occidentalis, Linnaeus.
Tijerilla, Tijereta, o Rabijunco	Fregata magnificens, Mathews
Bubí	Sula leucogastra leucogastra, (Boddaert)
CICONIIFORMES	
Garza Real o Garzón Blanco	Casmerodius albus egretta (Gmelin)
Garza Blanca	Egretta thula thula (Molina)
Garzón Ceniciento	Ardea herodias adoxa, Oberholser
Gara Colorada	Dichromanassa rufescens rufescens (Gmelin)
Garza Tricolor	Hydranassa tricolor ruficollis (Gosse)
Garza Azul	Florida caerulea caerulescens (Latham)
Gallinazo o Yaboa	Nycticorax nycticorax hoactl (Gmelin)
Faisán	Mycteria americana, Linnaeus
Ibis Blanco o Coco Blanco	Guara alba (Linnaeus)
Cuchareta o Espátula	Ajaia ajaia (Linnaeus)
Flamenco	Phoenicopterus ruber, Linnaeus
Martinete o Garzón Morado	Butorides virescens maculatus (Boddaert)
Martinete Chico	Ixobrichus exilis exilis (Gmelin)
ANSERIFORMES	
Pato Chorizo	Nomonyx dominicus (Linnaeus)
FALCONIFORMES	
- - - -	Buteo platypterus platypterus (Vieillot)
Codorniz o Coronisa	Colinus virginianus cubanensis (Gould)
GRUIFORMES	
Gallareta Chiquita	Porzana flaviventer hendersoni, Bartsch
CHARADRIIFORMES	
Búcaro	Oedicnemus dominicensis, Cory
Fraile o Playero	Oxyechus spp.
Gallito de Agua	Parra gymnostoma, Cory Sin. Jacana spinosa violacea (Cory)

List of Species Which Are To Be Included for the Dominican Republic in the Annex to the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere—Provisional List of Species Which Cannot Be Hunted or Captured Without Previous Official Permit—Continued

CHARADRIIFORMES (continúa)	
Gaviota	Larus spp.
"	Sterna spp.
"	Thalasseus spp.
"	Chlidonias nigra surinamensis (Gmelin)
"	Anous stolidus stolidus (Linnaeus)
"	Gelochelidon nilotica aranea (Wilson)
COLUMBIFORMES	
Perdiz Roja	Oreopeleia montana (Linnaeus)
Perdiz Gris	Oreopeleia chrysia (Bonaparte)
Perdiz Ceniza	Oreopeleia leucometopius, Chapman
PSITTACIFORMES	
Cotorra	Amazona ventralis (Muller)
Perico	Aratinga chloroptera chloroptera (Suancé)
CUCULIFORMES	
Judío	Crotophaga ani, Linnaeus
Pájaro Bobo	Saurothera longirrostris longirrostris (Hermann)
" "	Coccyzus americanus americanus (Linnaeus)
" "	Coccyzus minor teres, Peters
" "	Hyetornis rufigularis (Hartlaub)
STRIGIFORMES	
Lechuza Oreja Corta	Asio domingensis domingensis (Muller)
Lechuza Orejuda	Asio stygius noctipetens, Riley
Cucú	Speotyto cunicularia troglodytes Sin. Speotyto dominicensis, Verrill
CAPRIMUGIFORMES	
Don Juan o Guaragüaito	Nyctibius griseus abboti, Richmond
Querebebé o Crequeté (1)	Chordeiles minor vicinus, Riley
" " (1)	Chordeiles minor gundlachii, Laurence
MICROPODIFORMES	
Zumbador	Anthracotorax dominicus (Linnaeus) Sin. Lampornis dominicus, Cory
"	Riccordia swainsonii (Lesson) Sin. Sporadinus elegans, Sallé
Zumbadorcito Minúsculo	Mellisuga minima vieilloti (Shaw)
Vencejo, Flechúo o Golondrina	Nephoecetes niger niger (Gmelin)
"	Streptoprocne zonaris pallidifrons (Hartest)
TROGONIFORMES	
Papagallo o Cotorrita de Sierra o Perico de Sierra	Temnotrogon roseigaster (Vieillot)
CORACIIFORMES	
Martin Pescador (1)	Megaceryle alcyon alcyon, Linnaeus
Barranquero o Barrancolí	Todus subulatus, Gray
" "	Todus angustirrostris, Lafresnaye

(1) Inmigrantes.

List of Species Which Are To Be Included for the Dominican Republic in the Annex to the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere—Provisional List of Species Which Cannot Be Hunted or Captured Without Previous Official Permit—Continued

PASSERIFORMES	
Golondrina	Progne dominicensis (Gmelin)
Ruiseñor	Mimus polyglottos dominicus (Linnaeus)
Sigua Canaria o Pinta Sigua	Icterus dominicensis (Linnaeus)
Sigua Verde o Mamonera	Phaenicophilus palmarum palmarum (Linnaeus)
Sigua Calandra o Gallito degollado	Loxigilla violacea affinis (Ridgway)
Jilguero	Myadestes genibarbis montanus, Cory
Sigüíta o Reinita	Certhiola bananivora, Bryant Sin. Coereba bananivora bananivora (Gmelin)
Majulita o Sigua	Contopus hispaniolensis, Cory Sin. Blacicus hispaniolensis hispaniolensis (Bryant)
Chichiguao Buche Negro	Phonipara zena, Cory Sin. Tiaris bicolor marchii (Baird)
Chichiguao Garganta Amarilla	Phonipara olivacea, Sallé Sin. Tiaris olivacea olivacea (Linnaeus)
Julián Chiví o Bien te Veo	Vireo olivaceus olivaceus (Linnaeus)
Sigüítas	Microligea spp.
"	Loximitris dominicensis (Bryant)
"	Brachyspiza capensis antillarum, Riley
- - - -	Spindalis multicolor (Vieillot) Sin. Tanagra dominicensis, Bryant
- - - -	Calyptophilus frugivorus frugivorus (Cory)
Organista	Tanagra musica (Gmelin) Sin. Euphonia musica, Sallé
Cuervo	Corvus leucognaphalus, Daudin
Cao	Corvus palmarum palmarum, Wurttemberg

NOTE This provisional list of protected species of our fauna is made up of species mentioned in Game Law No. 85 of February 4, 1931, in Decree No. 900 on closed seasons, of December 27, 1940, and of additional species included by the Forest, Game, and Fishing Service of the Department of State for Agriculture, Industry, and Labor, some because of their usefulness in the battle against insects and rodents, and others because of their rarity.

Some of the species mentioned in the aforesaid law no. 85 are immigrants.

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[TRANSLATION]

EMBASSY OF CUBA
WASHINGTON, D.C.

SEPTEMBER 16, 1941.

Dr. LEO S. ROWE,
Director General,
Pan American Union,
Washington.

MR. DIRECTOR GENERAL:

I have the honor to refer to your courteous communication dated July 15 last in which you were good enough to state that the list of species which is to be included in the annex to the Convention on Nature Protection and Wild Life Preservation in the Western Hemisphere may be sent to the Union at the time of signing the convention or subsequently.

On instructions from the Minister of State of my Government, I take pleasure in forwarding to you, herewith, the list of migratory species protected and that of native species which have the same privilege, as also a statement

of the places declared to be avifauna refuges and [a list of] piscine species in the national territory, which have been drawn up by the Ministry of Agriculture.

I renew to you, Mr. Director General, the assurance of my most distinguished consideration.

A. F. CONCHESO

[ENCLOSURE]

List of Migratory Species Protected by Presidential Decree No. 1,159 Which Are To Be Included for the Government of the Republic of Cuba in the Annex to the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere.

Cayamas	*Mycteria americana.*	Permanent Closed Season
Sevillas	*Ajaia ajaja.*	
Zarapico Real	*Catroptophorus semipalmatus.*	
Zarapico de Patas Amarillas	*Totanus flavipes.*	
Zarapico	*Actitis maculatus.*	
Zarapico	*Phoeopus hudsonicus.*	
Zarapico	*Numenius americanus.*	
Zarapico	*Totanus melanoleucus.*	
Zarapico	*Pisobia fuscicollis.*	
Zarapico	*Limnodromus griseus Scolopaceus.*	
Zarapico	*Micropalama himantopus.*	
Zarapico	*Ereunetes pusillus.*	
Zarapico	*Ereunetes maurii.*	
Zarapico	*Tryngites subroficollis.*	
Zarapico	*Limosa fedoa.*	
Zarapico	*Limosa haemastica.*	
Zarapico	*Crocethia alba.*	
Zarapico	*Pisobia melanotos.*	
Zarapiquito	*Tringa solitaria solitaria.*	
Gallinuelas	*Rallus limicola.*	
Gallinuelas	*Laterallus jamaicensis.*	
Gallinuelas	*Porazna carolina.*	
Gallinuelita	*Porzana flaviventer gossei.*	
Becasina	*Capella delicata.*	
Gallareta Americana	*Fulica americana.*	
Gallareta Azul	*Porphyrula martinica.*	
Gallareta de Pico Colorado	*Gallinulla chlorupus cerceris.*	
Gallego Real	*Larus argentatus smithsonianus.*	
Cocos Blancos	*Guara Alba.*	
Cocos Prietos	*Plegadis falcinellus falcinellus.*	
Cocos Rojos	*Guara rubra.*	
Guanaba de la Florida	*Nyoticorax nycticorax.*	
Guanaba Real	*Nyctanassa violácea.*	
Guanaba Rojo	*Botaurus lentiginosus.*	
Guanana Blanca	*Chen hyperbórea.*	
Guanana Prieta	*Chen caerulescens.*	
Guanana	*Anser albifrons.*	
Garzas	*Dichromanassa rufescens.*	
Garza Blanca		
Garza Real	*Casmerodius albus.*	
Garza Blanca	*Egretta thula.*	
Garza Azul	*Florida caerulea*	
Garza	*Dydranassa tricolor ruficollis.*	
Garcita	*Ixobrychus exilis.*	Special Closed Season
Grulla	*Grus canadensis nesiotis.*	
Flamenco	*Phoenicopterus ruber.*	

List of Migratory Species Protected by Presidential Decree No. 1,159 Which Are To Be Included for the Government of the Republic of Cuba in the Annex to the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere—Continued

Petrel	*Oceonodroma leucorhoa.*
Pampero	*Ocenonites oceanicus.*
Pampero	*Puffinus lhermineri.*
Pajaro Bobo	*Sula leucogaster.*
Pajaro Bobo	*Sula-Sula.*
Frailecillo	*Charadrius alexandrinus tenuirostris.*
Frailecillo	*Charadrius semipalmatus.*
Frailecillo	*Oxyechus vociferus vociferus.*
Zancudo o Cachiporra	*Himantopus himantopus mexicanus.*
Gaviota, Gaviota Real	*Thalasseus maximus maximus.*
Gaviota Boba	*Anous stolidus stolidus.*
Gaviota Monja	*Sterna anaethetus melanoptera.*
Gaviota Monja	*Sterna fuscata fuscata.*
Gaviota Prieta	*Chilidonias nigra surinamensis.*
Gaviota, Gaviota Pico de Tijera.	*Rynchops nigra nigra.*
Gaviota	*Thalasseus sandwicensis acuflavidus.*
Gaviota	*Gelochelidon nilotica aranea.*
Gaviota	*Sterna dougalli dougalli.*
Martin Pescador	*Magaceryle alcyon alcyon.*
Carpintero de Paso	*Sphyrapicus varius variu.*
Gavilan Caracolero	*Rosthramus sociabilis.*
Golondrina. Vencejo	*Nephoetes niger niger.*
Golondrina	*Callichelidon cyaneoviridiers.*
Golondrina	*Petrochelidon fulva fulva.*
Golondrina	*Petrochelidon albifrons albifron.*
Golondrina	*Iridoprocne bicolor.*
Golondrina	*Riparia riparia riparia.*
Golondrina	*Hirundo erythrogaster.*
Vencejo de Collar	*Streptoprocne zonaris pallidifron.*
Guincho	*Pandion haliaetus.*
Pato de las Bahamas	*Dafila bahemensis.*
Pato Cuchareta	*Spatula clypeata.*
Pato de la Florida	*Querquedula discors.*
Pato Ingles	*Anas platyrhynchus.*
Pato Labanco	*Marecca americana.*
Pato Pescuecilargo	*Dafila acuta.*
Pato Serrano	*Nettion carolinensis.*
Pato de Alas Azules	*Querquedula cyanoptera.*
Pato Negro. Pato Del Medio	*Nyroca collaris.*
Pato Morisco, Pato Turco	*Nyroca affinis.*
Pato	*Chaulelasnus streperus.*
Pato	*Nyroca americana.*
Pato	*Nyroca valisineria.*
Pato	*Nyroca marila.*
Pato	*Glauciodetta clangula.*
Pato	*Charitonetta albeola.*
Bobito Grande	Myiarchus stolidus sagrae.
Bobito Chico	*Blasicus caribaeus caribaeus.*
Bobito	*Myiarchus stolidus sagrae.*
Bobito	*BLASICUS VIRENS.*
Bobito	*Empidonax virescens.*
Bobito	*Sayornis phoebe.*
Bijirita	*Dendroica aestiva aestiva.*
Bijirita	*Dendroica magnolia.*
Bijirita	*Dendroica tigrina.*

List of Migratory Species Protected by Presidential Decree No. 1,159 Which Are To Be Included for the Government of the Republic of Cuba in the Annex to the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere—Continued

Bijirita	*Dendroica caerulescens cairnsi.*	
Bijirita	*Dendroica virens virens.*	
Bijirita	*Dendroica caerulea.*	
Bijirita	*Dendroica fusca.*	
Bijirita	*Dendroica dominica.*	
Bijirita Del Pinar	*Dendroica pithyophila.*	
Bijirita	*Dendroica pensylvánica.*	
Bijirita	*Dendroica striata.*	
Bijirita	*Dendroica discolor.*	
Bijirita	*Dendroica palmarum hypochrysea.*	
Bijirita Trepadora	*Mniotilia varia.*	
Bijirita	*Protonotaria citrea.*	
Bijirita	*Limnothlypis swainsoni.*	
Bijirita	*Helmitheros vermivorus.*	
Bijirita	*Vermívora chrysoptera.*	
Bijirita	*Vermívora bachmani*	
Bijirita	*Vermívora peregrina.*	
Bijirita	*Campsothlypis americana americana.*	
Bijirita	*Seiurus aurocapillus.*	
Bijirita	*Seiurus noveborancia notabilis.*	
Bijirita	*Seiurus motacilla.*	
Bijirita	*Oporornis formosus.*	
Bijirita	*Geothlypia trichas ignota.*	
Pitirre Abejero	*Tyrannus dominicensis.*	
Pitirre	*Tyrannus tyrannus.*	
Picaflores. Zunzun	*Archilochus colubris.*	
Primavera	*Coccyzus americanus.*	
Tordo	*Hylocichla mustelina.*	
Tordo	*Hylocichla instulata.*	
Tordo	*Hylocichla minima aliciae.*	
Tordo	*Hylocichla fuscescens.*	
Mariposa	*Passerina ciris.*	
Predicador. Bienteveo	*Vireosilvia barbatula.*	
	Vireo noveboracensis.	These Species Have no Common Names
	Vireo flavifrons.	
	Vireo olivácea.	
Zorzal Gato	*Dumetella carolinensis.*	
Zorzal Viajero	*Torvus migratorius migratorius.*	

List of Indigenous Mammals, Birds and Reptiles Protected Under Various Laws Which Are To Be Included for the Government of the Republic of Cuba in the Annex to the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere

Venado	*Odontocoelus virginianus.*	Limited Protection. Permanent Closed Season. Protection of a Permanent Charater for These Species
Manati	*Trichechus manatus.*	
Hutia Andaraz	*Capromys melanurus.*	
Hutia Carabali	*Capromys prehensilis.*	
Hutia Enana	*Geocapromys nana.*	
Alcatraz	*Pelecanus fuscus.*	
Barbiquejo	*Oropeleia chrysia.*	Permanent Closed Season for These Species
Boyero. Torito	*Oropeleia montana.*	
Camao. Azulona	*Oropeleia caniceps caniceps.*	
Bijirita. Chillona Pechero	*Teretistris fornsi.*	
Cabretiro De La Cienaga	*Torreornis inexpectata.*	
Canario Del Manglar	*Dendroica petechia gundlachi.*	

List of Indigenous Mammals, Birds and Reptiles Protected Under Various Laws Which Are To Be Included for the Government of the Republic of Cuba in the Annex to the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere—Con.

Cao Montero	*Corvus nasicus.*	
Cao Pinalero	*Corvus palmarum minutus.*	
Flamenco	*Phoenicopterus ruber.*	
Carpintero Escapulario	*Colaptes chrysocaulosus chrysocaulosus.*	Limited Protection for All These Species
Carpintero Churroso	*Nesoceleus fernandinae.*	
Carpintero Jabado	*Centurus superciliaris.*	
Carpintero Real	*Campephilus principalis biardi.*	
Carpintero Roan	*Xiphidiopicus percussus percussus.*	
Carpintero Jabado	*Xiphidiopicus percussus insulae pinorum.*	
Catey. Periquito	*Aratinga euops.*	Special Closed Season
Cotorra	*Amazona leucocephala.*	
Codorniz	*Colinus virginianus cubensis.*	
Colibri. Zunzuncito Zumbador	*Capite helenae.*	
Ferminia	*Ferminia cerverai.*	
Gallinuela Sin Cola	*Cyanolimnas cerverai.*	
Gavilan Batista	*Buteogallus gundlachi.*	
Gavilan Babosero. Gavilan Caracolero	*Chondrohierax wilsoni.*	
Guabairo	*Caprimulgus cubanensis.*	
Chillona. Chillona	*Teretistris fernandinae.*	
Chillona. Pechero. Bijirita	*Teretistris fornsi.*	
Chinchiguao. Juan Chivi. Ojon	*Vireo gundlachi.*	
Chirriador. Toti de la Cienaga	*Agelaius assimilis subniger.*	
Choncholi. Toti	*Ptiloxena atroviolácea.*	
Rabijunco	*Phaeton lepturus.*	
Querequete	*Chordeiles minor gundlachi.*	
Ruiseñor de Isla de Pinos	*Myadestes elisabeth retrusus.*	
Torcaza Boba	*Columba inornata inornata.*	
Sabanero	*Sturnella magna hippocrepis.*	
Siguapa	*Asio stygius siguapa.*	
Siju. Cuco. Cotunto	*Gymnasio lawrencei.*	
Siju. Siju Platanero	*Glaucidion siju.*	
Lechuza	*Tyto alba furcata.*	
Taco. Arriero	*Saurothera merlini merlini.*	
Tocoloro. Tocororo	*Priotelus temnurus.*	
Tomeguin del Pinar. Sencrenico	*Tiaris canora.*	
Tomeguin. Tomeguin de la Tierra. Viudita	*Tiaris olivácea olivácea.*	
Yaguaza	*Dendrocygna arbórea.*	
Zaramagullon Grande	*Podilumbus podiceps.*	
Zaramagullon Chico	*Colymbus dominicus.*	
Zorzal Real. Zorzal de Patas Coloradas	*Mimocichla rubripes rubripes.*	
Caiman	*Crocodylus acutus.*	

List of Places Declared to be Game and Fish Refuges in the National Territory Which Are To Be Included for the Government of the Republic of Cuba in the Annex to the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere

National Flamingo Refuge	Northern and Southern Coasts of the Provinces of Santa Clara and Camaguey.
"National Game and Fish Refuge"	All the Zapata Marsh From the Hatinguanico River to Cienfuegos Bay, the Northern and Southern Coasts Thereof and All the Swampy Area Included Within the Aforesaid Marsh. Provinces of Havana, Matanzas and Santa Clara.
"El Cristal" National Park	Sagua de Tanamo-Mayari-Orte.
"National Game and Fish Refuge"	Topes de Collantes, Province of Santa Clara.
"Juan Gundlach" National Game and Fish Refuge.	All the Zone of the Province of Havana, Included Between the Sea and the Following Highways: From Santa Fe to Punta Brava, Punta Brava to Arroyo Arenas, Arroyo Arenas to Wajay, Wajay to Mazorra, Mazorra to Rancho Boyeros, Ranchos Boyeros to Arroyo Apolo, Arroyo Apolo via Luyano to Guanabacoa and Guanabacoa to Cojimar, Within Which Are Included the Bosque de la Habana, Country Club Park, Jaimanitas Country Club, La Coronela, Torrecillas and Mazorra.

[TRANSLATION]

EMBASSY OF THE UNITED STATES OF BRAZIL
Washington

October 10, 1941

His Excellency Dr. L. S. ROWE,
Director General of the Pan American Union.

No. 86/661.03(20)

MR. DIRECTOR GENERAL:

With reference to my note no. 15 of February 19 last, I have the honor to send Your Excellency herewith a partial list of the species of Brazilian flora of great and moderate importance which are deserving of special protection.

The aforesaid list was sent to Itamaratí by the Ministry of Agriculture in order to be transmitted to the Pan American Union, in compliance with the provisions of article VII of the Convention on Nature Protection and Wild Life Preservation in the Western Hemisphere.

I take the opportunity to renew to Your Excellency the assurances of my high consideration.

CARLOS MARTINS PEREIRA E SOUSA

[ENCLOSURE]

Partial List of Species of Brazilian Flora, of Great and Average Importance, Deserving of Special Protection

Pau Brasil—Caesalpinda echinata Lam.
Jacarandá-cabiúna—Dalbergia nigra Allem.
Jequitibá rosa—Cariniana Brasiliensis Cas.
Sapucaia—Lecythis pisonis Camb.
Imbuia—Phoebe porsa (Nees) Mêz.
Cedro—Cedrela fissilis Vell.
Sucupira—Bowdichia nitida Spruce.
Peroba de campos—Parathecoma peroba (Record) Kuhlm.
Pau setim—Aspidosperma eburneum Allem.
Imburana—Torresia cearensis Fr. All.
Oiticica—Licania rigida Benth.
Andiroba—Carapa guianensis Aubl.
Pinho do Paraná—Araucaria angustifolia (Dert.) O. Ktze.
Carnaúba—Copernicea cerifera Mart.
Genipapo—Genipa americana L.
Braúna—Melanoxylon Brauna Schott.
Oleo Vermelho—Myroxylon peruiferum L.F.
Oleo Pardo—Myrocarpus fastigiatus Allem.
Pau ferro—Caesalpinia ferrea Mart.
Guarabú roxo—Peltogyne confertiflora Benth.
Jatobá—Humenaea courbaril L.
Massaranduba—Mimusops Salzmannii A. DC.
Merindiba bagre—Terminalia januarensis DC.
Sobragy—Colubrina rufa Reiss.
Jacarandá-tan—Machaerium pedicellatum Vog.
Guarajuba—Terminalia acuminata (Fr. All.) Eichl.
Grosahy-azeite—Moldenhauera floribunda Schrad.
Pequiá-marfim—Aspidosperma parvifolium A. DC.
Itapicurú amarelo—Goniorrhachis marginata Taub.
Palmito—Euterpe edulis Mart.
Araribá rosa—Centrolobium tomentosum Benth.
Araribá robusto—Centrolobium robustum Mart.
Folha larga—Platycyamus Regnelli Benth.
Vinhatico—Plathymenia foliolosa Benth.
Aroeira do sertão—Astronium urundeuva Engl.
Jequitibá de manta—Couratari rufescens Camb.
Cangerana—Cabralea cangerana Saldanha.
Ipê roxo—Tecoma heptaphylla Mart.
Jacaré—Piptadenia communis Benth.
Roxinho—Peltogyne confertiflora Benth.
Pau marfim—Agonandra brasiliensis Benth.
Pau marfim (S.P.) Balfourodendron eburneum Mello.
Guarantã—Esenbeckia leiocarpa Engl.
Guatambú—Aspidosperma olivaceum (Mart.) Muell. Arg.
Louro pardo—Cordia trichotoma Vell.

[TRANSLATION]

EMBASSY OF VENEZUELA
WASHINGTON

FEBRUARY 3, 1942.

The Honorable L. S. ROWE,
Director General of the Pan American Union,
Washington, D.C.

No. 629

MR. DIRECTOR GENERAL:

I have the honor to send you, enclosed herewith, a list of the plant and animal species which are to be included, on the part of the Government of Venezuela, in the annex to the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere.

I take the opportunity to renew to you the assurances of my most distinguished consideration.

DIÓGENES ESCALANTE

[ENCLOSURE]

List of Plant and Animal Species Which Are To Be Included for the United States of Venezuela in the Annex to the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere

Plant Species

1. Cedro	*Cedrela mexicana,* Roemer.
2. Caoba	*Swietenia Candollei,* Pittier.
3. Sarrapia	*Coumarouna odorata,* Aubl.
4. Sarrapia	*Coumarouna punctata,* S. F. Blake.
5. Coroba	*Jessenia polycarpa,* Karsten.
6. Coruba o palma de vino	*Attalea speciosa,* Mart.
7. Corozo	*Acrocomia scelerocarpa,* Mart.
8. Corozo colorado	*Alaeis melanococca,* Gaerth.
9. Corocillo	*Bactris corocilla,* Karsten.
10. Corocito	*Cocos orinocenis,* Spruece.
11. Seje	*Oenocarpus Bataua,* Mart.
12. Yagua	*Attalea Humboldtiana,* Spruece.
13. Yagua	*Attalea humilis,* Mart.
14. Copaiba	*Copaifera officinalis,* Jacq.
15. Copaiba	*Copaifera langsdorffi,* Desf.
16. Zapatero o narajillo	*Casearia praecox,* Griset.
17. Yema de huevo	*Aspidosperma vargasii,* A.D.C.
18. Palma bendita	*Ceroxylon Klopstockia,* Mart.
19. Orquídeas	Todas las variedades.
20. Helechos arborecentes	Todas las variedades.

List of Plant and Animal Species Which Are To Be Included for the United States of Venezuela in the Annex to the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere—Continued

Animal Species

1. Venado . . . . . *Cervus rufus.*
2. Venado . . . . . *Mazama* sp.
3. Venado . . . . . *Odocoileus* sp.
4. Guácharo . . . . . *Steatornis caripensis,* Humb.
5. Garza blanca . . . . . *Ardea segretta.*
6. Garza blanca . . . . . *Ardea candidissima.*
7. Cóndor o Aguilucho de los Andes . . . . . *Sarcorhamphus gryphus,* (L).
8. Gaviota . . . . . *Procellaria puffinus.*
9. Gaviota plateada . . . . . *Larus argentatus.*
10. Gaviota afín . . . . . *Larus affinis.*
11. Gaviota común . . . . . *Larus cirrhocepalus.*
12. Gaviota obscura . . . . . *Larus fuscus.*
13. Gaviota boba . . . . . *Larus atricilla.*
14. Martín Pescador . . . . . *Magaceryle alcyon alcyon.*
15. Flamenco o Pájaro Soldado . . . . . *Phaenicopterus ruber.*
16. Zamuro . . . . . *Coragyps atratus foetens.*
17. Zamuro . . . . . *Perenoptere uruba.*
18. Oripopo . . . . . *Cathartes aura ruficollis.*
19. Caricare . . . . . *Polyborus cheriway cheriway.*
20. Tortuga fluvial . . . . . *Podocnemis expansa.*
21. Sapos y ranas . . . . . *Hylas spp.*

❧ ❧ ❧ ❧ ❧ ❧ ❧

Haiti[3]

Provisional List of Species of Haitian Fauna Deserving of Protection

1. Agouti, *Solenodon paradoxus*
2. Aigrettes, *Casmerodicus albus; Egretta thula thula; Dichromanassa rufescens*
3. Ara rouge, *Ara tricolor*
4. Caleçon rouge, *Temnogrogon roseigaster*
5. Chat huant, *Nyctibius griseus abbotti*
6. Crapaud, *Bufo marinus*
7. Flamand rose, *Phoenicopterus ruber*
8. Ibis, *Mycteria americana*
9. " blanc, *Guava alba*
10. Iguanes, *Cyclura cornuta* et *C. cordii*
11. Mabouyas, *Ameiva* spp., *Mabuya* spp.
12. Musicien solitaire, *Myadestes genibarbus montanus*
13. Spatule rose, *Ajaia ajaja*

Provisional List of Species of Haitian Flora Deserving Protection

1. Bois d'ébène, *Rochefortia acanthophora*
2. Gros Mahaut, *Thespesia populnea*
3. Latanier Zombi, *Coccothrinax anomala* ou *Zombia antillarum Bailey*
4. Mancenillier, *Hippomane mancenilla; Metopium toxiferum*
5. Palmier, *Coccothrinax ekmanii*
6. Petit coco, *Attalea crassipatha*

[3] The lists of species for the Republic of Haiti were transmitted to the Pan American Union without a covering letter.

International Convention for the Protection of Birds, Paris, 1950

Done at Paris 18 October 1950

*Entered into force 17 January 1963**

Depositary: France

Primary source citation: 638 UNTS 185

INTERNATIONAL CONVENTION FOR THE PROTECTION OF BIRDS

The Governments signatory to this Convention,

Realizing the danger of extermination which threatens certain species of birds and concerned about the numerical decrease in other species, particularly migratory species; and

Considering that, in the interests of science, the protection of nature and the economy of each nation, all birds should as a matter of principle be protected;

Have recognized the need to amend the International Convention for the Protection of Birds useful to Agriculture, signed in Paris on 19 March 1902, and have agreed on the following provisions:

Article 1

The purpose of this Convention is to protect birds in the wild state.

Article 2

With the exceptions specified in articles 6 and 7 of this Convention, protection shall be given:

(*a*) to all birds, at least during their breeding season, and to migrants, during their return flight to their nesting ground, particularly in March, April, May, June and July;

(*b*) to species which are in danger of extinction or are of scientific interest, throughout the year.

* This Convention is not in force for the United States.

Article 3

With the exceptions specified in articles 6 and 7 of this Convention, the import, export, transport, sale, offer for sale, purchase, giving or possession of any live or dead bird or any part of a bird killed or captured in contravention of the provisions of this Convention, during the season in which the species concerned is protected, shall be prohibited.

Article 4

With the exceptions specified in articles 6 and 7 of this Convention, the removal or destruction of nests under construction or in use and the taking or damaging, transport, import or export, sale, offer for sale, purchase or destruction of eggs or their shells or broods of young birds in the wild state, during the season in which a particular species is protected and particularly during its breeding season, shall be prohibited.

Nevertheless, these prohibitions shall not apply, on the one hand, to eggs lawfully collected and accompanied by a certificate establishing either that they are to be used for propagating or scientific purposes or that they come from captive birds and, on the other hand, to lapwing eggs, solely in the case of the Netherlands, where exceptional local conditions have already been recognized.

Article 5

With the exceptions specified in articles 6 and 7 of this Convention, the High Contracting Parties undertake to prohibit the methods enumerated below as being of such a nature as to result in the mass killing or capture of birds or to cause them unnecessary suffering.

However, in countries where such methods are at present permitted by law, the High Contracting Parties undertake gradually to introduce into their legislation measures designed to prohibit or restrict their use:

(*a*) snares, bird-line, traps, hooks, nets, poisoned bait, stupefying agents, blinded decoy-birds,

(*b*) decoy-ponds with nets,

(*c*) mirrors, torches, and other artificial lights,

(*d*) fishing nets or tackle for the capture of aquatic birds,

(*e*) magazine or automatic sporting-guns holding more than two cartridges,

(*f*) in general, all firearms other than shoulder arms,

(*g*) the pursuit and shooting of birds from motorboats in inland waters and, from 1 March to 1 October, in territorial and off-shore waters,

(*h*) the use of motor vehicles or air-borne machines to shoot or drive birds,

(*i*) the offering of rewards for the capture or killing of birds,

(*j*) the right of unrestricted shooting and netting shall be regulated throughout the year and suspended during the breeding season on the sea and along the banks and coasts,

(*k*) all other methods designed for the mass capture or killing of birds.

Article 6

If, in a particular region, one species is found to be jeopardizing the future of certain agricultural or animal products by damaging fields, vineyards, gardens, orchards, woods, game or fish or threatening to destroy or simply diminish one or more species whose conservation is desirable, the appropriate authorities may issue individual permits lifting the prohibitions established in articles 2 to 5 in the case of that species. It shall, however, be unlawful to purchase or sell birds killed in this manner or to transport them outside the region where they were killed.

If national laws contain other provisions designed to reduce the damage caused by certain species of birds in such a way as to assure the perpetuation of those species, such provisions may be maintained by the High Contracting Parties.

In view of the special importance of economic conditions in Sweden, Norway, Finland and the Faroe Islands, the appropriate authorities in those countries may make exceptions and permit certain derogations from the provisions of this Convention. If Iceland should accede to this Convention, it shall be entitled to enjoy the benefit of such derogations upon request.

No measure shall be adopted in any country of such a nature as to cause the complete destruction of the indigenous or migratory species referred to in this article.

Article 7

Exceptions to the provisions of this Convention may be permitted by the appropriate authorities in the interests of science and education, the propagation and breeding of game birds and falconry, depending on the circumstances and provided that all necessary precautions are taken to prevent abuses. The provisions concerning transport contained in articles 3 and 4 shall not apply to the United Kingdom.

In each country, the prohibitions enumerated in article 3 shall not apply to the plumage of species of birds which may be killed there.

Article 8

Each Contracting Party undertakes to prepare a list of birds which may lawfully be killed or captured in its own territory, subject to compliance with the conditions laid down in this Convention.

Article 9

Each Contracting Party shall have the right to draw up a list of species of indigenous and migratory birds which may be kept in captivity by individuals and shall establish the permissible methods of capture and the conditions in which birds may be transported or kept in captivity.

Each Contracting Party shall regulate trade in the birds protected by this Convention and take all necessary measures to limit the expansion of such trade.

Article 10

The High Contracting Parties undertake to consider and adopt measures to prevent the destruction of birds by hydrocarbons and other causes of water pollution, by lighthouses, electric cables, insecticides or poisons or by any other means. They shall endeavour to educate children and the public in order to convince them of the need to preserve and protect birds.

Article 11

In order to alleviate the consequences of the rapid disappearance of suitable breeding grounds for birds as a result of human intervention, the High Contracting Parties undertake to encourage and promote immediately, by every possible means, the creation of water or land reserves of suitable size and location where birds can nest and raise their broods safely and where migratory birds can also rest and find their food undisturbed.

This Convention shall be ratified and the instruments of ratification shall be deposited with the Ministry of Foreign Affairs of the French Republic, which shall notify their receipt to all States that have signed and acceded to the Convention.

Any State not a signatory to this Convention may accede thereto. Accessions shall be notified to the Ministry of Foreign Affairs of the French Republic, which shall inform all the States that have signed and acceded to the Convention accordingly.

This Convention shall enter into force on the ninetieth day following the date of deposit of the sixth instrument of ratification or accession. For each State ratifying or acceding to the Convention after that date, it shall enter into force on the ninetieth day following the date of deposit by that State of its instrument of ratification or accession.

This Convention is concluded for an indefinite period but any Contracting Party may denounce it at any time, five years after its entry into force as specified in this article. Such denunciation shall take effect one year after the date of its notification to the Ministry of Foreign Affairs of the French Republic.

This Convention shall supersede, between the countries which ratify or accede to it, the provisions of the 1902 International Convention.

IN WITNESS WHEREOF, the undersigned, duly authorized by their respective Governments, have signed this Convention.

DONE at Paris, on 18 October 1950.

Convention on the High Seas, Geneva, 1958

Done at Geneva 29 April 1958

Entered into force 30 September 1962

Depositary: Secretary-General of the United Nations

Primary source citation: 13 UST 2312, TIAS 5200

CONVENTION ON THE HIGH SEAS

The States Parties to this Convention,

Desiring to codify the rules of international law relating to the high seas,

Recognizing that the United Nations Conference on the Law of the Sea, held at Geneva from 24 February to 27 April 1958, adopted the following provisions as generally declaratory of established principles of international law,

Have agreed as follows:

Article 1

The term "high seas" means all parts of the sea that are not included in the territorial sea or in the internal waters of a State.

Article 2

The high seas being open to all nations, no State may validly purport to subject any part of them to its sovereignty. Freedom of the high seas is exercised under the conditions laid down by these articles and by the other rules of international law. It comprises, *inter alia,* both for coastal and non-coastal States:

(1) Freedom of navigation;

(2) Freedom of fishing;

(3) Freedom to lay submarine cables and pipelines;

(4) Freedom to fly over the high seas.

These freedoms, and others which are recognized by the general principles of international law, shall be exercised by all States with reasonable regard to the interests of other States in their exercise of the freedom of the high seas.

Article 3

1. In order to enjoy the freedom of the seas on equal terms with coastal States, States having no sea-coast should have free access to the sea. To this end States situated between the sea and a State having no sea-coast shall by common agreement with the latter and in conformity with existing international convention accord:

(*a*) To the State having no sea-coast, on a basis of reciprocity, free transit through their territory; and

(*b*) To ships flying the flag of that State treatment equal to that accorded to their own ships, or to the ships of any other States, as regards access to seaports and the use of such ports.

2. States situated between the sea and a State having no sea-coast shall settle, by mutual agreement with the latter, and taking into account the rights of the coastal State or State of transit and the special conditions of the State having no sea-coast, all matters relating to freedom of transit and equal treatment in ports, in case such States are not already parties to existing international conventions.

Article 4

Every State, whether coastal or not, has the right to sail ships under its flag on the high seas.

Article 5

1. Each State shall fix the conditions for the grant of its nationality to ships, for the registration of ships in its territory, and for the right to fly its flag. Ships have the nationality of the State whose flag they are entitled to fly. There must exist a genuine link between the State and the ship; in particular, the State must effectively exercise its jurisdiction and control in administrative, technical and social matters over ships flying its flag.

2. Each State shall issue to ships to which it has granted the right to fly its flag documents to that effect.

Article 6

1. Ships shall sail under the flag of one State only and, save in exceptional cases expressly provided for in international treaties or in these articles, shall be subject to its exclusive jurisdiction on the high seas. A ship may not change its flag during a voyage or while in a port of call, save in the case of a real transfer of ownership or change of registry.

2. A ship which sails under the flags of two or more States, using them according to convenience, may not claim any of the nationalities in question with respect to any other State, and may be assimilated to a ship without nationality.

Article 7

The provisions of the preceding articles do not prejudice the question of ships employed on the official service of an inter-governmental organization flying the flag of the organization.

Article 8

1. Warships on the high seas have complete immunity from the jurisdiction of any State other than the flag State.

2. For the purposes of these articles, the term "warship" means a ship belonging to the naval forces of a State and bearing the external marks distinguishing warships of its nationality, under the command of an officer duly commissioned by the government and whose name appears in the Navy List, and manned by a crew who are under regular naval discipline.

Article 9

Ships owned or operated by a State and used only on government non-commercial service shall, on the high seas, have complete immunity from the jurisdiction of any State other than the flag State.

Article 10

1. Every State shall take such measures for ships under its flag as are necessary to ensure safety at sea with regard *inter alia* to:

(*a*) The use of signals, the maintenance of communications and the prevention of collisions;

(*b*) The manning of ships and labour conditions for crews taking into account the applicable international labour instruments;

(*c*) The construction, equipment and seaworthiness of ships.

2. In taking such measures each State is required to conform to generally accepted international standards and to take any steps which may be necessary to ensure their observance.

Article 11

1. In the event of a collision or of any other incident of navigation concerning a ship on the high seas, involving the penal or disciplinary responsibility of the master or of any other person in the service of the ship, no penal or disciplinary proceedings may be instituted against such persons except before the judicial or administrative authorities either of the flag State or of the State of which such person is a national.

2. In disciplinary matters, the State which has issued a master's certificate or a certificate of competence or licence shall alone be competent, after due legal process, to pronounce the withdrawal of such certificates, even if the holder is not a national of the State which issued them.

3. No arrest or detention of the ship, even as a measure of investigation, shall be ordered by any authorities other than those of the flag State.

Article 12

1. Every State shall require the master of a ship sailing under its flag, in so far as he can do so without serious danger to the ship, the crew or the passengers,

(*a*) To render assistance to any person found at sea in danger of being lost;

(*b*) To proceed with all possible speed to the rescue of persons in distress if informed of their need of assistance, in so far as such action may reasonably be expected of him;

(*c*) After a collision, to render assistance to the other ship, her crew and her passengers and, where possible, to inform the other ship of the name of his own ship, her port of registry and the nearest port at which she will call.

2. Every coastal State shall promote the establishment and maintenance of an adequate and effective search and rescue service regarding safety on and over the sea and—where circumstances so require—by way of mutual regional arrangements co-operate with neighbouring States for this purpose.

Article 13

Every State shall adopt effective measures to prevent and punish the transport of slaves in ships authorized to fly its flag, and to prevent the unlawful use of its flag for that purpose. Any slave taking refuge on board any ship, whatever its flag, shall *ipso facto* be free.

Article 14

All States shall co-operate to the fullest possible extent in the repression of piracy on the high seas or in any other place outside the jurisdiction of any State.

Article 15

Piracy consists of any of the following acts:

(1) Any illegal acts of violence, detention or any act of depredation, committed for private ends by the crew or the passengers of a private ship or a private aircraft, and directed:

(a) On the high seas, against another ship or aircraft, or against persons or property on board such ship or aircraft;

(b) Against a ship, aircraft, persons or property in a place outside the jurisdiction of any State;

(2) Any act of voluntary participation in the operation of a ship or of an aircraft with knowledge of facts making it a pirate ship or aircraft;

(3) Any act of inciting or of intentionally facilitating an act described in sub-paragraph 1 or sub-paragraph 2 of this article.

Article 16

The acts of piracy, as defined in article 15, committed by a warship, government ship or government aircraft whose crew has mutinied and taken control of the ship or aircraft are assimilated to acts committed by a private ship.

Article 17

A ship or aircraft is considered a pirate ship or aircraft if it is intended by the persons in dominant control to be used for the purpose of committing one of the acts referred to in article 15. The same applies if the ship or aircraft has been used to commit any such act, so long as it remains under the control of the persons guilty of that act.

Article 18

A ship or aircraft may retain its nationality although it has become a pirate ship or aircraft. The retention or loss of nationality is determined by the law of the State from which such nationality was derived.

Article 19

On the high seas, or in any other place outside the jurisdiction of any State, every State may seize a pirate ship or aircraft, or a ship taken by piracy and under the control of pirates, and arrest the persons and seize the property on board. The courts of the State which carried out the seizure may decide upon the penalties to be imposed, and may also determine the action to be taken with regard to the ships, aircraft or property, subject to the rights of third parties acting in good faith.

Article 20

Where the seizure of a ship or aircraft on suspicion of piracy has been effected without adequate grounds, the State making the seizure shall be liable to the State the nationality of which is possessed by the ship or aircraft, for any loss or damage caused by the seizure.

Article 21

A seizure on account of piracy may only be carried out by warships or military aircraft, or other ships or aircraft on government service authorized to that effect.

Article 22

1. Except where acts of interference derive from powers conferred by treaty, a warship which encounters a foreign merchant ship on the high seas is not justified in boarding her unless there is reasonable ground for suspecting:

(*a*) That the ship is engaged in piracy; or

(*b*) That the ship is engaged in the slave trade; or

(*c*) That, though flying a foreign flag or refusing to show its flag, the ship is, in reality, of the same nationality as the warship.

2. In the cases provided for in sub-paragraphs (*a*), (*b*) and (*c*) above, the warship may proceed to verify the ship's right to fly its flag. To this end, it may send a boat under the command of an officer to the suspected ship. If suspicion remains after the documents have been checked, it may proceed to a further examination on board the ship, which must be carried out with all possible consideration.

3. If the suspicions prove to be unfounded, and provided that the ship boarded has not committed any act justifying them, it shall be compensated for any loss or damage that may have been sustained.

Article 23

1. The hot pursuit of a foreign ship may be undertaken when the competent authorities of the coastal State have good reason to believe that the ship has violated the laws and regulations of that State. Such pursuit must be commenced when the foreign ship or one of its boats is within the internal waters or the territorial sea or the contiguous zone of the pursuing State, and may only be continued outside the territorial sea or the contiguous zone if the pursuit has not been interrupted. It is not necessary that, at the time when the foreign ship within the territorial sea or the contiguous zone receives the order to stop, the ship giving the order should likewise be within the territorial sea or the contiguous zone. If the foreign ship is within a contiguous zone, as defined in article 24 of the Convention on the Territorial Sea and the Contiguous Zone, the pursuit may only be undertaken if there has been a violation of the rights for the protection of which the zone was established.

2. The right of hot pursuit ceases as soon as the ship pursued enters the territorial sea of its own country or of a third State.

3. Hot pursuit is not deemed to have begun unless the pursuing ship has satisfied itself by such practicable means as may be available that the ship pursued or one of its boats or other craft working as a team and using the ship pursued as a mother ship are within the limits of the territorial sea, or as the case may be within the contiguous zone. The pursuit may only be commenced after a visual or auditory signal to stop has been given at a distance which enables it to be seen or heard by the foreign ship.

4. The right of hot pursuit may be exercised only by warships or military aircraft, or other ships or aircraft on government service specially authorized to that effect.

5. Where hot pursuit is effected by an aircraft:

(*a*) The provisions of paragraph 1 to 3 of this article shall apply *mutatis mutandis*;

(*b*) The aircraft giving the order to stop must itself actively pursue the ship until a ship or aircraft of the coastal State, summoned by the aircraft, arrives to take over the pursuit, unless the aircraft is itself able to arrest the ship. It does not suffice to justify an arrest on the high seas that the ship was merely sighted by the aircraft as an offender or suspected offender, if it was not both ordered to stop and pursued by the aircraft itself or other aircraft or ships which continue the pursuit without interruption.

6. The release of a ship arrested within the jurisdiction of a State and escorted to a port of that State for the purposes of an enquiry before the competent authorities may not be claimed solely on the ground that the ship, in the course of its voyage, was escorted across a portion of the high seas, if the circumstances rendered this necessary.

7. Where a ship has been stopped or arrested on the high seas in circumstances which do not justify the exercise of the right of hot pursuit, it shall be compensated for any loss or damage that may have been thereby sustained.

Article 24

Every State shall draw up regulations to prevent pollution of the seas by the discharge of oil from ships or pipelines or resulting from the exploitation and exploration of the seabed and its subsoil, taking account of existing treaty provisions on the subject.

Article 25

1. Every State shall take measures to prevent pollution of the seas from the dumping of radioactive waste, taking into account any standards and regulations which may be formulated by the competent international organizations.

2. All States shall co-operate with the competent international organizations in taking measures for the prevention of pollution of the seas or air space above, resulting from any activities with radio-active materials or other harmful agents.

Article 26

1. All States shall be entitled to lay submarine cables and pipelines on the bed of the high seas.

2. Subject to its right to take reasonable measures for the exploration of the continental shelf and the exploitation of its natural resources, the coastal State may not impede the laying or maintenance of such cables or pipelines.

3. When laying such cables or pipelines the State in question shall pay due regard to cables or pipelines already in position on the seabed. In particular, possibilities of repairing existing cables or pipelines shall not be prejudiced.

Article 27

Every State shall take the necessary legislative measures to provide that the breaking or injury by a ship flying its flag or by a person subject to its jurisdiction of a submarine cable beneath the high seas done wilfully or through culpable negligence, in such a manner as to be liable to interrupt or obstruct telegraphic or telephonic communications, and similarly the breaking or injury of a submarine pipeline or high-voltage power cable shall be a punishable offence. This provision shall not apply to any break or injury caused by persons who acted merely with the legitimate object of saving their lives or their ships, after having taken all necessary precautions to avoid such break or injury.

Article 28

Every State shall take the necessary legislative measures to provide that, if persons subject to its jurisdiction who are the owners of a cable or pipeline beneath the high seas, in laying or repairing that cable or pipeline, cause a break in or injury to another cable or pipeline, they shall bear the cost of the repairs.

Article 29

Every State shall take the necessary legislative measures to ensure that the owners of ships who can prove that they have sacrificed an anchor, a net or any other fishing gear, in order to avoid injuring a submarine cable or pipeline, shall be indemnified by the owner of the cable or pipeline, provided that the owner of the ship has taken all reasonable precautionary measures beforehand.

Article 30

The provisions of this Convention shall not affect conventions or other international agreements already in force, as between States Parties to them.

Article 31

This Convention shall, until 31 October 1958, be open for signature by all States Members of the United Nations or of any of the specialized agencies, and by any other State invited by the General Assembly of the United Nations to become a Party to the Convention.

Article 32

This Convention is subject to ratification. The instruments of ratification shall be deposited with the Secretary-General of the United Nations.

Article 33

This Convention shall be open for accession by any States belonging to any of the categories mentioned in article 31. The instruments of accession shall be deposited with the Secretary-General of the United Nations.

Article 34

1. This Convention shall come into force on the thirtieth day following the date of deposit of the twenty-second instrument of ratification or accession with the Secretary-General of the United Nations.

2. For each State ratifying or acceding to the Convention after the deposit of the twenty-second instrument of ratification or accession, the Convention shall enter into force on the thirtieth day after deposit by such State of its instrument of ratification or accession.

Article 35

1. After the expiration of a period of five years from the date on which this Convention shall enter into force, a request for the revision of this Convention may be made at any time by any Contracting Party by means of a notification in writing addressed to the Secretary-General of the United Nations.

2. The General Assembly of the United Nations shall decide upon the steps, if any, to be taken in respect of such request.

Article 36

The Secretary-General of the United Nations shall inform all States Members of the United Nations and the other States referred to in article 31:

(*a*) Of signatures to this Convention and of the deposit of instruments of ratification or accession, in accordance with articles 31, 32 and 33;

(*b*) Of the date on which this Convention will come into force, in accordance with article 34;

(*c*) Of requests for revision in accordance with article 35.

Article 37

The original of this Convention, of which the Chinese, English, French, Russian and Spanish texts are equally authentic, shall be deposited with the Secretary-General of the United Nations, who shall send certified copies thereof to all States referred to in article 31.

IN WITNESS WHEREOF the undersigned Plenipotentiaries, being duly authorized thereto by their respective Governments, have signed this Convention.

DONE at Geneva, this twenty-ninth day of April one thousand nine hundred and fifty-eight.

Convention on the Territorial Sea and the Contiguous Zone, Geneva, 1958

Done at Geneva 29 April 1958

Entered into force 10 September 1964

Depositary: Secretary-General of the United Nations

Primary source citation: 15 UST 1606, TIAS 5639

CONVENTION ON THE TERRITORIAL SEA AND THE CONTIGUOUS ZONE

The States Parties to this Convention

Have agreed as follows:

PART I

TERRITORIAL SEA

SECTION I. GENERAL

Article 1

1. The sovereignty of a State extends, beyond its land territory and its internal waters, to a belt of sea adjacent to its coast, described as the territorial sea.

2. This sovereignty is exercised subject to the provisions of these articles and to other rules of international law.

Article 2

The sovereignty of a coastal State extends to the air space over the territorial sea as well as to its bed and subsoil.

SECTION II. LIMITS OF THE TERRITORIAL SEA

Article 3

Except where otherwise provided in these articles, the normal baseline for measuring the breadth of the territorial sea is the low-water line along the coast as marked on large-scale charts officially recognized by the coastal State.

Article 4

1. In localities where the coast line is deeply indented and cut into, or if there is a fringe of islands along the coast in its immediate vicinity, the method of straight baselines joining appropriate points may be employed in drawing the baseline from which the breadth of the territorial sea is measured.

2. The drawing of such baselines must not depart to any appreciable extent from the general direction of the coast, and the sea areas lying within the lines must be sufficiently closely linked to the land domain to be subject to the régime of internal waters.

3. Baselines shall not be drawn to and from low-tide elevations, unless lighthouses or similar installations which are permanently above sea level have been built on them.

4. Where the method of straight baselines is applicable under the provisions of paragraph 1, account may be taken, in determining particular baselines, of economic interests peculiar to the region concerned, the reality and the importance of which are clearly evidenced by a long usage.

5. The system of straight baselines may not be applied by a State in such a manner as to cut off from the high seas the territorial sea of another State.

6. The coastal State must clearly indicate straight baselines on charts, to which due publicity must be given.

Article 5

1. Waters on the landward side of the baseline of the territorial sea form part of the internal waters of the State.

2. Where the establishment of a straight baseline in accordance with article 4 has the effect of enclosing as internal waters areas which previously had been considered as part of the territorial sea or of the high seas, a right of innocent passage, as provided in articles 14 to 23, shall exist in those waters.

Article 6

The outer limit of the territorial sea is the line every point of which is at a distance from the nearest point of the baseline equal to the breadth of the territorial sea.

Article 7

1. This article relates only to bays the coasts of which belong to a single State.

2. For the purposes of these articles, a bay is a well-marked indentation whose penetration is in such proportion to the width of its month as to contain landlocked waters and constitute more than a mere curvature of the coast. An indentation shall not, however, be regarded as a bay unless its area is as large as, or larger than, that of the semi-circle whose diameter is a line drawn across the mouth of that indentation.

3. For the purpose of measurement, the area of an indentation is that lying between the low-water mark around the shore of the indentation and a line joining the low-water marks of its natural entrance points. Where, because of the presence of islands, an indentation has more than one mouth, the semi-circle shall be drawn on a line as long as the sum total of the lengths of the lines across the different mouths. Islands within an indentation shall be included as if they were part of the water areas of the indentation.

4. If the distance between the low-water marks of the natural entrance points of a bay does not exceed twenty-four miles, a closing line may be drawn between these two low-water marks, and the waters enclosed thereby shall be considered as internal waters.

5. Where the distance between the low-water marks of the natural entrance points of a bay exceeds twenty-four miles, a straight baseline of twenty-four miles shall be drawn within the bay in such a manner as to enclose the maximum area of water that is possible with a line of that length.

6. The foregoing provisions shall not apply to so-called "historic" bays, or in any case where the straight baseline system provided for in article 4 is applied.

Article 8

For the purpose of delimiting the territorial sea, the outermost permanent harbour works which form an integral part of the harbour system shall be regarded as forming part of the coast.

Article 9

Roadsteads which are normally used for the loading, unloading and anchoring of ships, and which would otherwise be situated wholly or partly outside the outer limit of the territorial sea, are included in the territorial sea. The coastal State must clearly demarcate such roadsteads and indicate them on charts together with their boundaries, to which due publicity must be given.

Article 10

1. An island is a naturally-formed area of land, surrounded by water, which is above water at high-tide.

2. The territorial sea of an island is measured in accordance with the provisions of these articles.

Article 11

1. A low-tide elevation is a naturally-formed area of land which is surrounded by and above water at low-tide but submerged at high tide. Where a low-tide elevation is situated wholly or partly at a distance not exceeding the breadth of the territorial sea from the mainland or an island, the low-water line on that elevation may be used as the baseline for measuring the breadth of the territorial sea.

2. Where a low-tide elevation is wholly situated at a distance exceeding the breadth of the territorial sea from the mainland or an island, it has no territorial sea of its own.

Article 12

1. Where the coasts of two States are opposite or adjacent to each other, neither of the two States is entitled, failing agreement between them to the contrary, to extend is territorial sea beyond the median line every point of which is equidistant from the nearest points on the baselines from which the breadth of the territorial seas of each of the two States is measured. The provisions of this paragraph shall not apply, however, where it is necessary by reason of historic title or other special circumstances to delimit the territorial seas of the two States in a way which is at variance with this provision.

2. The line of delimitation between the territorial seas of two States lying opposite to each other or adjacent to each other shall be marked on large-scale charts officially recognized by the coastal States.

Article 13

If a river flows directly into the sea, the baseline shall be a straight line across the mouth of the river between points on the low-tide line of its banks.

SECTION III. RIGHT OF INNOCENT PASSAGE

SUB-SECTION A. RULES APPLICABLE TO ALL SHIPS

Article 14

1. Subject to the provisions of these articles, ships of all States, whether coastal or not, shall enjoy the right of innocent passage through the territorial sea.

2. Passage means navigation through the territorial sea for the purpose either of traversing that sea without entering internal waters, or of proceeding to internal waters, or of making for the high seas from internal waters.

3. Passage includes stopping and anchoring, but only in so far as the same are incidental to ordinary navigation or are rendered necessary by *force majeure* or by distress.

4. Passage is innocent so long as it is not prejudicial to the peace, good order or security of the coastal State. Such passage shall take place in conformity with these articles and with other rules of international law.

5. Passage of foreign fishing vessels shall not be considered innocent if they do not observe such laws and regulations as the coastal State may make and publish in order to prevent these vessels from fishing in the territorial sea.

6. Submarines are required to navigate on the surface and to show their flag.

Article 15

1. The coastal State must not hamper innocent passage through the territorial sea.

2. The coastal State is required to give appropriate publicity to any dangers to navigation, of which it has knowledge, within its territorial sea.

Article 16

1. The coastal State may take the necessary steps in its territorial sea to prevent passage which is not innocent.

2. In the case of ships proceeding to internal waters, the coastal State shall also have the right to take the necessary steps to prevent any breach of the conditions to which admission of those ships to those waters is subject.

3. Subject to the provisions of paragraph 4, the coastal State may, without discrimination amongst foreign ships, suspend temporarily in specified areas of its territorial sea the innocent passage of foreign ships if such suspension is essential for the protection of its security. Such suspension shall take effect only after having been duly published.

4. There shall be no suspension of the innocent passage of foreign ships through straits which are used for international navigation between one part of the high seas and another part of the high seas or the territorial sea of a foreign State.

Article 17

Foreign ships exercising the right of innocent passage shall comply with the laws and regulations enacted by the coastal State in conformity with these articles and other rules of international law and, in particular, with such laws and regulations relating to transport and navigation.

SUB-SECTION B. RULES APPLICABLE TO MERCHANT SHIPS

Article 18

1. No charge may be levied upon foreign ships by reason only of their passage through the territorial sea.

2. Charges may be levied upon a foreign ship passing through the territorial sea as payment only for specific services rendered to the ship. These charges shall be levied without discrimination.

Article 19

1. The criminal jurisdiction of the coastal State should not be exercised on board a foreign ship passing through the territorial sea to arrest any person or to conduct any investigation in connexion with any crime committed on board the ship during its passage, save only in the following cases:

(*a*) If the consequences of the crime extend to the coastal State; or

(*b*) If the crime is of a kind to disturb the peace of the country or the good order of the territorial sea; or

(c) If the assistance of the local authorities has been requested by the captain of the ship or by the consul of the country whose flag the ship flies; or

(*d*) If it is necessary for the suppression of illicit traffic in narcotic drugs.

2. The above provisions do not affect the right of the coastal State to take any steps authorized by its laws for the purpose of an arrest or investigation on board a foreign ship passing through the territorial sea after leaving internal waters.

3. In the cases provided for in paragraphs 1 and 2 of this article, the coastal State shall, if the captain so requests, advise the consular authority of the flag State before taking any steps, and shall facilitate contact between such authority and the ship's crew. In cases of emergency this notification may be communicated while the measures are being taken.

4. In considering whether or how an arrest should be made, the local authorities shall pay due regard to the interests of navigation.

5. The coastal State may not take any steps on board a foreign ship passing through the territorial sea to arrest any person or to conduct any investigation in connexion with any crime committed before the ship entered the territorial sea, if the ship, proceeding from a foreign part, is only passing through the territorial sea without entering internal waters.

Article 20

1. The coastal State should not stop or divert a foreign ship passing through the territorial sea for the purpose of exercising civil jurisdiction in relation to a person on board the ship.

2. The coastal State may not levy execution against or arrest the ship for the purpose of any civil proceedings, save only in respect of obligations or liabilities assumed or incurred by the ship itself in the course or for the purpose of its voyage through the waters of the coastal State.

3. The provisions of the previous paragraph are without prejudice to the right of the coastal State, in accordance with its laws, to levy execution against or to arrest, for the purpose of any civil proceedings, a foreign ship lying in the territorial sea, or passing through the territorial sea after leaving internal waters.

SUB-SECTION C. RULES APPLICABLE TO GOVERNMENT SHIPS OTHER THAN WARSHIPS

Article 21

The rules contained in sub-sections A and B shall also apply to government ships operated for commercial purposes.

Article 22

1. The rules contained in sub-section A and in article 18 shall apply to government ships operated for non-commercial purposes.

2. With such exceptions as are contained in the provisions referred to in the preceding paragraph, nothing in these articles affects the immunities which such ships enjoy under these articles or other rules of international law.

SUB-SECTION D. RULE APPLICABLE TO WARSHIPS

Article 23

If any warship does not comply with the regulations of the coastal State concerning passage through the territorial sea and disregards any request for compliance which is made to it, the coastal State may require the warship to leave the territorial sea.

PART II

CONTIGUOUS ZONE

Article 24

1. In a zone of the high seas contiguous to its territorial sea, the coastal State may exercise the control necessary to:

(*a*) Prevent infringement of its customs, fiscal, immigration or sanitary regulations within its territory or territorial sea;

(*b*) Punish infringement of the above regulations committed within its territory or territorial sea.

2. The contiguous zone may not extend beyond twelve miles from the baseline from which the breadth of the territorial sea is measured.

3. Where the coasts of two States are opposite or adjacent to each other, neither of the two States is entitled, failing agreement between them to the contrary, to extend its contiguous zone beyond the median line every point of which is equidistant from the nearest points on the baselines from which the breadth of the territorial seas of the two States is measured.

PART III

FINAL ARTICLES

Article 25

The provisions of this Convention shall not affect conventions or other international agreements already in force, as between States Parties to them.

Article 26

This Convention shall, until 31 October 1958, be open for signature by all States Members of the United Nations or of any of the specialized agencies, and by any other State invited by the General Assembly of the United Nations to become a Party to the Convention.

Article 27

This Convention is subject to ratification. The instruments of ratification shall be deposited with the Secretary-General of the United Nations.

Article 28

This Convention shall be open for accession by any States belonging to any of the categories mentioned in article 26. The instruments of accession shall be deposited with the Secretary-General of the United Nations.

Article 29

1. This Convention shall come into force on the thirtieth day following the date of deposit of the twenty-second instrument of ratification or accession with the Secretary-General of the United Nations.

2. For each State ratifying or acceding to the Convention after the deposit of the twenty-second instrument of ratification or accession, the Convention shall enter into force on the thirtieth day after deposit by such State of its instrument of ratification or accession.

Article 30

1. After the expiration of a period of five years from the date on which this Convention shall enter into force, a request for the revision of this Convention may be made at any time by any Contracting Party by means of a notification in writing addressed to the Secretary-General of the United Nations.

2. The General Assembly of the United Nations shall decide upon the steps, if any, to be taken in respect of such request.

Article 31

The Secretary-General of the United Nations shall inform all States Members of the United Nations and the other States referred to in article 26:

(*a*) Of signatures to this Convention and of the deposit of instruments of ratification or accession, in accordance with articles 26, 27 and 28;

(*b*) Of the date on which this Convention will come into force, in accordance with article 29;

(*c*) Of requests for revision in accordance with article 30.

Article 32

The original of this Convention, of which the Chinese, English, French, Russian and Spanish texts are equally authentic, shall be deposited with the Secretary-General of the United Nations, who shall send certified copies thereof to all States referred to in article 26.

IN WITNESS WHEREOF the undersigned Plenipotentiaries, being duly authorized thereto by their respective Governments, have signed this Convention.

DONE at Geneva, this twenty-ninth day of April one thousand nine hundred and fifty-eight.

Convention on Fishing and Conservation of the Living Resources of the High Seas, Geneva, 1958

Done at Geneva 29 April 1958

Entered into force 20 March 1966

Depositary: Secretary-General of the United Nations

Primary source citation: 17 UST 138, TIAS 5969

CONVENTION ON FISHING AND CONSERVATION OF THE LIVING RESOURCES OF THE HIGH SEAS

The States Parties to this Convention,

Considering that the development of modern techniques for the exploitation of the living resources of the sea, increasing man's ability to meet the need of the world's expanding population for food, has exposed some of these resources to the danger of being over-exploited,

Considering also that the nature of the problems involved in the conservation of the living resources of the high seas is such that there is a clear necessity that they be solved, whenever possible, on the basis of international co-operation through the concerted action of all the States concerned,

Have agreed as follows:

Article 1

1. All States have the right for their nationals to engage in fishing on the high seas, subject (*a*) to their treaty obligations, (*b*) to the interests and rights of coastal States as provided for in this Convention, and (*c*) to the provisions contained in the following articles concerning conservation of the living resources of the high seas.

2. All States have the duty to adopt, or to co-operate with other States in adopting, such measures for their respective nationals as may be necessary for the conservation of the living resources of the high seas.

Article 2

As employed in this Convention, the expression "conservation of the living resources of the high seas" means the aggregate of the measures rendering possible the optimum sustainable yield from those resources so as to secure a maximum supply of food and other marine products. Conservation programmes should be formulated with a view to securing in the first place a supply of food for human consumption.

Article 3

A State whose nationals are engaged in fishing any stock or stocks of fish or other living marine resources in any area of the high seas where the nationals of other States are not thus engaged shall adopt, for its own nationals, measures in that area when necessary for the purpose of the conservation of the living resources affected.

Article 4

1. If the nationals of two or more States are engaged in fishing the same stock or stocks of fish or other living marine resources in any area or areas of the high seas, these States shall, at the request of any of them, enter into negotiations with a view to prescribing by agreement for their nationals the necessary measures for the conservation of the living resources affected.

2. If the States concerned do not reach agreement within twelve months, any of the parties may initiate the procedure contemplated by article 9.

Article 5

1. If, subsequent to the adoption of the measures referred to in articles 3 and 4, nationals of other States engage in fishing the same stock or stocks of fish or other living marine resources in any area or areas of the high seas, the other States shall apply the measures, which shall not be discriminatory in form or in fact, to their own nationals not later than seven months after the date on which the measures shall have been notified to the Director-General of the Food and Agriculture Organization of the United Nations. The Director-General shall notify such measures to any State which so requests and, in any case, to any State specified by the State initiating the measure.

2. If these other States do not accept the measures so adopted and if no agreement can be reached within twelve months, any of the interested parties may initiate the procedure contemplated by article 9. Subject to paragraph 2 of article 10, the measures adopted shall remain obligatory pending the decision of the special commission.

Article 6

1. A coastal State has a special interest in the maintenance of the productivity of the living resources in any area of the high seas adjacent to its territorial sea.

2. A coastal State is entitled to take part on an equal footing in any system of research and regulation for purposes of conservation of the living resources of the high seas in that area, even though its nationals do not carry on fishing there.

3. A State whose nationals are engaged in fishing in any area of the high seas adjacent to the territorial sea of a coastal State shall, at the request of that coastal State, enter into negotiations with a view to prescribing by agreement the measures necessary for the conservation of the living resources of the high seas in that area.

4. A State whose nationals are engaged in fishing in any area of the high seas adjacent to the territorial sea of a coastal State shall not enforce conservation measures in that area which are opposed to those which have been adopted by the coastal State, but may enter into negotiations with the coastal State with a view to prescribing by agreement the measures necessary for the conservation of the living resources of the high seas in that area.

5. If the States concerned do not reach agreement with respect to conservation measures within twelve months, any of the parties may initiate the procedure contemplated by article 9.

Article 7

1. Having regard to the provisions of paragraph 1 of article 6, any coastal State may, with a view to the maintenance of the productivity of the living resources of the sea, adopt unilateral measures of conservation appropriate to any stock of fish or other marine resources in any area of the high seas adjacent to its territorial sea, provided that negotiations to that effect with the other States concerned have not led to an agreement within six months.

2. The measures which the coastal State adopts under the previous paragraph shall be valid as to other States only if the following requirements are fulfilled:

(*a*) That there is a need for urgent application of conservation measures in the light of the existing knowledge of the fishery;

(*b*) That the measures adopted are based on appropriate scientific findings;

(*c*) That such measures do not discriminate in form or in fact against foreign fishermen.

3. These measures shall remain in force pending the settlement, in accordance with the relevant provisions of this Convention, of any disagreement as to their validity.

4. If the measures are not accepted by the other States concerned, any of the parties may initiate the procedure contemplated by article 9. Subject to paragraph 2 of article 10, the measures adopted shall remain obligatory pending the decision of the special commission.

5. The principles of geographical demarcation as defined in article 12 of the Convention on the Territorial Sea and the Contiguous Zone shall be adopted when coasts of different States are involved.

Article 8

1. Any State which, even if its nationals are not engaged in fishing in an area of the high seas not adjacent to its coast, has a special interest in the conservation of the living resources of the high seas in that area, may request the State or States whose nationals are engaged in fishing there to take the necessary measures of conservation under articles 3 and 4 respectively, at the same time mentioning the scientific reasons which in its opinion make such measures necessary, and indicating its special interest.

2. If no agreement is reached within twelve months, such State may initiate the procedure contemplated by article 9.

Article 9

1. Any dispute which may arise between States under articles 4, 5, 6, 7 and 8 shall, at the request of any of the parties, be submitted for settlement to a special commission of five members, unless the parties agree to seek a solution by another method of peaceful settlement, as provided for in Article 33 of the Charter of the United Nations.

2. The members of the commission, one of whom shall be designated as chairman, shall be named by agreement between the States in dispute within three months of the request for settlement in accordance with the provisions of this article. Failing agreement they shall, upon the request of any State party, be named by the Secretary-General of the United Nations, within a further three-month period, in consultation with the States in dispute and with the President of the International Court of Justice and the Director-General of the Food and Agriculture Organization of the United Nations, from amongst well-qualified persons being nationals of States not involved in the dispute and specializing in legal, administrative or scientific questions relating to fisheries, depending upon the nature of the dispute to be settled. Any vacancy arising after the original appointment shall be filled in the same manner as provided for the initial selection.

3. Any State party to proceedings under these articles shall have the right to name one of its nationals to the special commission, with the right to participate fully in the proceedings on the same footing as a member of the commission but without the right to vote or to take part in the writing of the commission's decision.

4. The commission shall determine its own procedure, assuring each party to the proceedings a full opportunity to be heard and to present its case. It shall also determine how the costs and expenses shall be divided between the parties to the dispute, failing agreement by the parties on this matter.

5. The special commission shall render its decision within a period of five months from the time it is appointed unless it decides, in case of necessity, to extend the time limit for a period not exceeding three months.

6. The special commission shall, in reaching its decisions, adhere to these articles and to any special agreements between the disputing parties regarding settlement of the dispute.

7. Decisions of the commission shall be by majority vote.

Article 10

1. The special commission shall, in disputes arising under article 7, apply the criteria listed in paragraph 2 of that article. In disputes under articles 4, 5, 6 and 8 the commission shall apply the following criteria, according to the issues involved in the dispute:

(*a*) Common to the determination of disputes arising under articles 4, 5 and 6 are the requirements:

(i) That scientific findings demonstrate the necessity of conservation measures;

(ii) That the specific measures are based on scientific findings and are practicable; and

(iii) That the measures do not discriminate, in form or in fact, against fishermen of other States.

(*b*) Applicable to the determination of disputes arising under article 8 is the requirement that scientific findings demonstrate the necessity for conservation measures, or that the conservation programme is adequate, as the case may be.

2. The special commission may decide that pending its award the measures in dispute shall not be applied, provided that, in the case of disputes under article 7, the measures shall only be suspended when it is apparent to the commission on the basis of *prima facie* evidence that the need for the urgent application of such measures does not exist.

Article 11

The decisions of the special commission shall be binding on the States concerned and the provisions of paragraph 2 of Article 94 of the Charter of the United Nations shall be applicable to those decisions. If the decisions are accompanied by any recommendations, they shall receive the greatest possible consideration.

Article 12

1. If the factual basis of the award of the special commission is altered by substantial changes in the conditions of the stock or stocks of fish or other living marine resources or in methods of fishing, any of the States concerned may request the other States to enter into negotiations with a view to prescribing by agreement the necessary modifications in the measures of conservation.

2. If no agreement is reached within a reasonable period of time, any of the States concerned may again resort to the procedure contemplated by article 9 provided that at least two years have elapsed from the original award.

Article 13

1. The regulation of fisheries conducted by means of equipment embedded in the floor of the sea in areas of the high seas adjacent to the territorial sea of a State may be undertaken by that State where such fisheries have long been maintained and conducted by its nationals, provided that non-nationals are permitted to participate in such activities on an equal footing with nationals except in areas where such fisheries have by long usage been exclusively enjoyed by such nationals. Such regulations will not, however, affect the general status of the areas as high seas.

2. In this article, the expression "fisheries conducted by means of equipment embedded in the floor of the sea" means those fisheries using gear with supporting members embedded in the sea floor, constructed on a site and left there to operate permanently or, if removed, restored each season on the same site.

Article 14

In articles 1, 3, 4, 5, 6 and 8, the term "nationals" means fishing boats or craft of any size having the nationality of the State concerned, according to the law of that State, irrespective of the nationality of the members of their crews.

Article 15

This Convention shall, until 31 October 1958, be open for signature by all States Members of the United Nations or of any of the specialized agencies, and by any other State invited by the General Assembly of the United Nations to become a Party to the Convention.

Article 16

This Convention is subject to ratification. The instruments of ratification shall be deposited with the Secretary-General of the United Nations.

Article 17

This Convention shall be open for accession by any States belonging to any of the categories mentioned in article 15. The instruments of accession shall be deposited with the Secretary-General of the United Nations.

Article 18

1. This Convention shall come into force on the thirtieth day following the date of deposit of the twenty-second instrument of ratification or accession with the Secretary-General of the United Nations.

2. For each State ratifying or acceding to the Convention after the deposit of the twenty-second instrument of ratification or accession, the Convention shall enter into force on the thirtieth day after deposit by such State of its instrument of ratification or accession.

Article 19

1. At the time of signature, ratification or accession, any State may make reservations to articles of the Convention other than to articles 6, 7, 9, 10, 11 and 12.

2. Any Contracting State making a reservation in accordance with the preceding paragraph may at any time withdraw the reservation by a communication to that effect addressed to the Secretary-General of the United Nations.

Article 20

1. After the expiration of a period of five years from the date on which this Convention shall enter into force, a request for the revision of this Convention may be made at any time by any Contracting Party by means of a notification in writing addressed to the Secretary-General of the United Nations.

2. The General Assembly of the United Nations shall decide upon the steps, if any, to be taken in respect of such request.

Article 21

The Secretary-General of the United Nations shall inform all States Members of the United Nations and the other States referred to in article 15:

(*a*) Of signatures to this Convention and of the deposit of instruments of ratification or accession, in accordance with articles 15, 16 and 17;

(*b*) Of the date on which this Convention will come into force, in accordance with article 18;

(*c*) Of requests for revision in accordance with article 20;

(*d*) Of reservations to this Convention, in accordance with article 19.

Article 22

The original of this Convention, of which the Chinese, English, French, Russian and Spanish texts are equally authentic, shall be deposited with the Secretary-General of the United Nations, who shall send certified copies thereof to all States referred to in article 15.

IN WITNESS WHEREOF the undersigned Plenipotentiaries, being duly authorized thereto by their respective Governments, have signed this Convention.

DONE at Geneva, this twenty-ninth day of April one thousand nine hundred and fifty-eight.

Convention on the Continental Shelf, Geneva, 1958

Done at Geneva 29 April 1958

Entered into force 10 June 1964

Depositary: Secretary-General of the United Nations

Primary source citation: 15 UST 471, TIAS 5578

CONVENTION ON THE CONTINENTAL SHELF

The States Parties to this Convention

Have agreed as follows:

Article 1

For the purpose of these articles, the term "continental shelf" is used as referring (*a*) to the seabed and subsoil of the submarine areas adjacent to the coast but outside the area of the territorial sea, to a depth of 200 metres or, beyond that limit, to where the depth of the superjacent waters admits of the exploitation of the natural resources of the said areas; (*b*) to the seabed and subsoil of similar submarine areas adjacent to the coasts of islands.

Article 2

1. The coastal State exercises over the continental shelf sovereign rights for the purpose of exploring it and exploiting its natural resources.

2. The rights referred to in paragraph 1 of this article are exclusive in the sense that if the coastal State does not explore the continental shelf or exploit its natural resources, no one may undertake these activities, or make a claim to the continental shelf, without the express consent of the coastal State.

3. The rights of the coastal State over the continental shelf do not depend on occupation, effective or notional, or on any express proclamation.

4. The natural resources referred to in these articles consist of the mineral and other non-living resources of the seabed and subsoil together with living organisms belonging to sedentary species, that is to say, organisms which, at the harvestable stage, either are immobile on or under the seabed or are unable to move except in constant physical contact with the seabed or the subsoil.

Article 3

The rights of the coastal State over the continental shelf do not affect the legal status of the superjacent waters as high seas, or that of the airspace above those waters.

Article 4

Subject to its right to take reasonable measures for the exploration of the continental shelf and the exploitation of its natural resources, the coastal State may not impede the laying or maintenance of submarine cables or pipe lines on the continental shelf.

Article 5

1. The exploration of the continental shelf and the exploitation of its natural resources must not result in any unjustifiable interference with navigation, fishing or the conservation of the living resources of the sea, nor result in any interference with fundamental oceanographic or other scientific research carried out with the intention of open publication.

2. Subject to the provisions of paragraphs 1 and 6 of this article, the coastal State is entitled to construct and maintain or operate on the continental shelf installations and other devices necessary for its exploration and the exploitation of its natural resources, and to establish safety zones around such installations and devices and to take in those zones measures necessary for their protection.

3. The safety zones referred to in paragraph 2 of this article may extend to a distance of 500 metres around the installations and other devices which have been erected, measured from each point of their outer edge. Ships of all nationalities must respect these safety zones.

4. Such installations and devices, though under the jurisdiction of the coastal State, do not possess the status of islands. They have no territorial sea of their own, and their presence does not affect the delimitation of the territorial sea of the coastal State.

5. Due notice must be given of the construction of any such installations, and permanent means for giving warning of their presence must be maintained. Any installations which are abandoned or disused must be entirely removed.

6. Neither the installations or devices, nor the safety zones around them, may be established where interference may be caused to the use of recognized sea lanes essential to international navigation.

7. The coastal State is obliged to undertake, in the safety zones, all appropriate measures for the protection of the living resources of the sea from harmful agents.

8. The consent of the coastal State shall be obtained in respect of any research concerning the continental shelf and undertaken there. Nevertheless the coastal State shall not normally withhold its consent if the request is submitted by a qualified institution with a view to purely scientific research into the physical or biological characteristics of the continental shelf, subject to the proviso that the coastal State shall have the right, if it so desires, to participate or to be represented in the research, and that in any event the results shall be published.

Article 6

1. Where the same continental shelf is adjacent to the territories of two or more States whose coasts are opposite each other, the boundary of the continental shelf appertaining to such States shall be determined by agreement between them. In the absence of agreement, and unless another boundary line is justified by special

circumstances, the boundary is the median line, every point of which is equidistant from the nearest points of the baselines from which the breadth of the territorial sea of each State is measured.

2. Where the same continental shelf is adjacent to the territories of two adjacent States, the boundary of the continental shelf shall be determined by agreement between them. In the absence of agreement, and unless another boundary line is justified by special circumstances, the boundary shall be determined by application of the principle of equidistance from the nearest points of the baselines from which the breadth of the territorial sea of each State is measured.

3. In delimiting the boundaries of the continental shelf, any lines which are drawn in accordance with the principles set out in paragraphs 1 and 2 of this article should be defined with reference to charts and geographical features as they exist at a particular date, and reference should be made to fixed permanent identifiable points on the land.

Article 7

The provisions of these articles shall not prejudice the right of the coastal State to exploit the subsoil by means of tunnelling irrespective of the depth of water above the subsoil.

Article 8

This Convention shall, until 31 October 1958, be open for signature by all States Members of the United Nations or of any of the specialized agencies, and by any other State invited by the General Assembly of the United Nations to become a Party to the Convention.

Article 9

This Convention is subject to ratification. The instruments of ratification shall be deposited with the Secretary-General of the United Nations.

Article 10

This Convention shall be open for accession by any States belonging to any of the categories mentioned in article 8. The instruments of accession shall be deposited with the Secretary-General of the United Nations.

Article 11

1. This Convention shall come into force on the thirtieth day following the date of deposit of the twenty-second instrument of ratification or accession with the Secretary-General of the United Nations.

2. For each State ratifying or acceding to the Convention after the deposit of the twenty-second instrument of ratification or accession, the Convention shall enter into force on the thirtieth day after deposit by such State of its instrument of ratification or accession.

Article 12

1. At the time of signature, ratification or accession, any State may make reservations to articles of the Convention other than to articles 1 to 3 inclusive.

2. Any Contracting State making a reservation in accordance with the preceding paragraph may at any time withdraw the reservation by a communication to that effect addressed to the Secretary-General of the United Nations.

Article 13

1. After the expiration of a period of five years from the date on which this Convention shall enter into force, a request for the revision of this Convention may be made at any time by any Contracting Party by means of a notification in writing addressed to the Secretary-General of the United Nations.

2. The General Assembly of the United Nations shall decide upon the steps, if any, to be taken in respect of such request.

Article 14

The Secretary-General of the United Nations shall inform all States Members of the United Nations and the other States referred to in article 8:

(*a*) Of signatures to this Convention and of the deposit of instruments of ratification or accession, in accordance with articles 8, 9 and 10;

(*b*) Of the date on which this Convention will come into force, in accordance with article 11;

(*c*) Of requests for revision in accordance with article 13;

(*d*) Of reservations to this Convention, in accordance with article 12.

Article 15

The original of this Convention, of which the Chinese, English, French, Russian and Spanish texts are equally authentic, shall be deposited with the Secretary-General of the United Nations, who shall send certified copies thereof to all States referred to in article 8.

IN WITNESS WHEREOF the undersigned Plenipotentiaries, being duly authorized thereto by their respective Governments, have signed this Convention.

DONE at Geneva, this twenty-ninth day of April one thousand nine hundred and fifty-eight.

Optional Protocol of Signature Concerning the Compulsory Settlement of Disputes, Geneva, 1958

Done at Geneva 29 April 1958

*Entered into force 30 September 1962**

Depositary: Secretary-General of the United Nations

Primary source citation: 450 UNTS 169

OPTIONAL PROTOCOL OF SIGNATURE CONCERNING THE COMPULSORY SETTLEMENT OF DISPUTES.

The States Parties to this Protocol and to any one or more of the Conventions on the Law of the Sea adopted by the United Nations Conference on the Law of the Sea held at Geneva from 24 February to 27 April 1958,

Expressing their wish to resort, in all matters concerning them in respect of any dispute arising out of the interpretation or application of any article of any Convention on the Law of the Sea of 29 April 1958, to the compulsory jurisdiction of the International Court of Justice, unless some other form of settlement is provided in the Convention or has been agreed upon by the Parties within a reasonable period,

Have agreed as follows :

Article I

Disputes arising out of the interpretation or application of any Convention on the Law of the Sea shall lie within the compulsory jurisdiction of the International Court of Justice, and may accordingly be brought before the Court by an application made by any party to the dispute being a Party to this Protocol.

Article II

This undertaking relates to all the provisions of any Convention on the Law of the Sea except, in the Convention on Fishing and Conservation of the Living Resources of the High Seas, articles 4, 5, 6, 7 and 8, to which articles 9, 10, 11 and 12 of that Convention remain applicable.

* This Optional Protocol is not in force for the United States.

Article III

The Parties may agree, within a period of two months after one party has notified its opinion to the other that a dispute exists, to resort not to the International Court of Justice but to an arbitral tribunal. After the expiry of the said period, either Party to this Protocol may bring the dispute before the Court by an application.

Article IV

1. Within the same period of two months, the Parties to this Protocol may agree to adopt a conciliation procedure before resorting to the International Court of Justice.

2. The conciliation commission shall make its recommendations within five months after its appointment. If its recommendations are not accepted by the parties to the dispute within two months after they have been delivered, either party may bring the dispute before the Court by an application.

Article V

This Protocol shall remain open for signature by all States who become Parties to any Convention on the Law of the Sea adopted by the United Nations Conference on the Law of the Sea and is subject to ratification, where necessary, according to the constitutional requirements of the signatory States.

Article VI

The Secretary-General of the United Nations shall inform all States who become Parties to any Convention on the Law of the Sea of signatures to this Protocol and of the deposit of instruments of ratification in accordance with article V.

Article VII

The original of this Protocol, of which the Chinese, English, French, Russian and Spanish texts are equally authentic, shall be deposited with the Secretary-General of the United Nations, who shall send certified copies thereof to all States referred to in article V.

IN WITNESS WHEREOF the undersigned Plenipotentiaries, being duly authorized thereto by their respective Governments, have signed this Protocol.

DONE at Geneva, this twenty-ninth day of April one thousand nine hundred and fifty-eight.

African Convention on the Conservation of Nature and Natural Resources, Algiers, 1968

Done at Algiers 15 September 1968

*Entered into force 16 June 1969**

Depositary: Organization of African Unity

Primary source citation: 1001 UNTS 3

AFRICAN CONVENTION ON THE CONSERVATION OF NATURE AND NATURAL RESOURCES

Preamble

We, the Heads of State and Government of Independent African States,

Fully conscious that soil, water, flora and faunal resources constitute a capital of vital importance to mankind;

Confirming, as we accepted upon declaring our adherence to the Charter of the Organization of African Unity, that we know that it is our duty "to harness the natural and human resources of our continent for the total advancement of our peoples in spheres of human endeavour";

Fully conscious of the ever-growing importance of natural resources from an economic, nutritional, scientific, educational, cultural and aesthetic point of view;

Conscious of the dangers which threaten some of these irreplaceable assets;

Accepting that the utilization of the natural resources must aim at satisfying the needs of man according to the carrying capacity of the environment;

Desirous of undertaking individual and joint action for the conservation, utilization and development of these assets by establishing and maintaining their rational utilization for the present and future welfare of mankind;

Convinced that one of the most appropriate means of achieving this end is to bring into force a convention;

Have agreed as follows:

* This Convention is not in force for the United States.

Article I

The Contracting States hereby establish an African Convention on the Conservation of nature and natural resources.

Article II. FUNDAMENTAL PRINCIPLE

The Contracting States shall undertake to adopt the measures necessary to ensure conservation, utilization and development of soil, water, flora and faunal resources in accordance with scientific principles and with due regard to the best interests of the people.

Article III. DEFINITIONS

For purposes of the present Convention, the meaning of the following expressions shall be as defined below:

1. "Natural Resources" means renewable resources, that is soil, water, flora and fauna.

2. "Specimen" means an individual example of a species of wild animal or wild plant or part of a wild plant.

3. "Trophy" means any dead animal specimen or part thereof whether included in a manufactured or processed object or otherwise dealt with, unless it has lost its original identity; also nests, eggs and eggshells.

4. "Conservation area" means any protected natural resource area, whether it be a strict natural reserve, a national park or a special reserve;

a) "strict nature reserve" means an area:

1) under State control and the boundaries of which may not be altered nor any portion alienated except by the competent legislative authority,

2) throughout which any form of hunting or fishing, any undertaking connected with forestry, agriculture or mining, any grazing, any excavation or prospecting, drilling, levelling of the ground or construction, any work tending to alter the configuration of the soil or the character of the vegetation, any water pollution and, generally, any act likely to harm or disturb the fauna or flora, including introduction of zoological or botanical species, whether indigenous or imported, wild or domesticated, are strictly forbidden,

3) where it shall be forbidden to reside, enter, traverse or camp, and where it shall be forbidden to fly over at low altitude, without a special written permit from the competent authority, and in which scientific investigations (including removal of animals and plants in order to maintain an ecosystem) may only be undertaken by permission of the competent authority;

b) "national park" means an area:

1) under State control and the boundaries of which may not be altered or any portion alienated except by the competent legislative authority,

2) exclusively set aside for the propagation, protection, conservation and management of vegetation and wild animals as well as for the protection of sites, land-scapes or geological formations of particular scientific or aesthetic value, for the benefit and enjoyment of the general public, and

3) in which the killing, hunting and capture of animals and the destruction or collection of plants are prohibited except for scientific and management purposes and on the condition that such measures are taken under the direction or control of the competent authority,

4) covering any aquatic environment to which all of the provisions of section *(b)* (1-3) above are applicable.

The activities prohibited in strict nature reserve under the provisions of section *(a)* (2) of paragraph (4) of this article are equally prohibited in national parks except in so far as they are necessary to enable the park authorities to implement the provisions of section (2) of this paragraph, by applying, for example, appropriate management practices, and to enable the public to visit these parks; however, sport fishing may be practiced with the authorization and under the control of the competent authority.

c) "special reserve" means other protected areas such as:

1) "game reserve" which shall denote an area

a) set aside for the conservation, management and propagation of wild animal life and the protection and management of its habitat,

b) within which the hunting, killing or capture of fauna shall be prohibited except by or under the direction or control of the reserve authorities,

c) where settlement and other human activities shall be controlled or prohibited;

2) "partial reserve" or "sanctuary" which shall denote an area

a) set aside to protect characteristic wildlife and especially bird communities, or to protect particularly threatened animal or plant species and especially those listed in the Annex to this Convention, together with the biotopes essential for their survival,

b) in which all other interests and activities shall be subordinated to this end;

3) "soil", "water" or "forest" reserve shall denote areas set aside to protect such resources.

Article IV. SOIL

The Contracting States shall take effective measures for conservation and improvement of the soil and shall in particular combat erosion and misuse of the soil. To this end:

a) they shall establish land-use plans based on scientific investigations (ecological, pedological, economic, and sociological) and, in particular, classification of land-use capability;

b) they shall, when implementing agricultural practices and agrarian reforms,

1) improve soil-conservation and introduce improved farming methods, which ensure long-term productivity of the land,

2) control erosion caused by various forms of land-use which may lead to loss of vegetation cover.

Article V. WATER

1. The Contracting States shall establish policies for conservation, utilization and development of underground and surface water, and shall endeavour to guarantee for their populations a sufficient and continuous supply of suitable water, taking appropriate measures with due regard to

1) the study of water cycles and the investigation of each catchment area,

2) the co-ordination and planning of water resources development projects,

3) the administration and control of all water utilization, and

4) prevention and control of water pollution.

2. Where surface or underground water resources are shared by two or more of the Contracting States, the latter shall act in consultation, and if the need arises, set up inter-State Commissions to study and resolve problems arising from the joint use of these resources, and for the joint development and conservation thereof.

Article VI. FLORA

1. The Contracting States shall take all necessary measures for the protection of flora and to ensure its best utilization and development. To this end the Contracting States shall:

a) adopt scientifically-based conservation, utilization and management plans of forests and rangeland, taking into account the social and economic needs of the States concerned, the importance of the vegetation cover for the maintenance of the water balance of an area, the productivity of soils and the habitat requirements of the fauna;

b) observe section (*a*) above by paying particular attention to controlling bush fires, forest exploitation, land clearing for cultivation, and over-grazing by domestic and wild animals;

c) set aside areas for forest reserves and carry out afforestation programmes where necessary;

d) limitation of forest grazing to season and intensities that will not prevent forest regeneration; and

e) establish botanical gardens to perpetuate plant species of particular interest.

2. The Contracting States also shall undertake the conservation of plant species or communities, which are threatened and/or of special scientific or aesthetic value by ensuring that they are included in conservation areas.

Article VII. FAUNAL RESOURCES

1. The Contracting States shall ensure conservation, wise use and development of faunal resources and their environment, within the framework of land-use planning and of economic and social development. Management shall be carried out in accordance with plans based on scientific principles, and to that end the Contracting States shall:

a) manage wildlife populations inside designated areas according to the objectives of such areas and also manage exploitable wildlife populations outside such areas for an optimum sustained yield, compatible with and complementary to other land uses; and

b) manage aquatic environments, whether in fresh, brackish or coastal water, with a view to minimize deleterious effects of any water and land use practice which might adversely affect aquatic habitats.

2. The Contracting States shall adopt adequate legislation on hunting, capture and fishing, under which:

a) the issue of permits is properly regulated;

b) unauthorized methods are prohibited;

c) the following methods of hunting, capture and fishing are prohibited:

1) any methods liable to cause a mass destruction of wild animals,

2) the use of drugs, poisons, poisoned weapons or poisoned baits,

3) the use of explosives,

4) the following methods of hunting and capture are particularly prohibited:

1. the use of mechanically propelled vehicles,

2. the use of fire,

3. the use of fire arms capable of firing more than one round at each pull of the trigger,

4. hunting or capture at night,

5. the use of missiles containing detonators;

d) the following methods of hunting or capture are as far as possible prohibited:

1) the use of nets and stockades,

2) the use of concealed traps, pits, snares, set-gun traps, deadfalls, and hunting from a blind or hide;

e) with a view to as rational use as possible of game meat the abandonment by hunters of carcasses of animals, which represent a food resource, is prohibited.

Capture of animals with the aid of drugs or mechanically-propelled vehicles, or hunting or capture by night if carried out by, or under the control of, the competent authority shall nevertheless be exempted from the prohibitions under (*c*) above.

Article VIII. PROTECTED SPECIES

1. The Contracting States recognize that it is important and urgent to accord a special protection to those animal and plant species that are threatened with extinction, or which may become so, and to the habitat necessary to their survival. Where such a species is represented only in the territory of one Contracting State, that State has a particular responsibility for its protection. These species which are, or may be listed, according to the degree of protection that shall be given to them are placed in Class A or B of the annex to this Convention, and shall be protected by Contracting States as follows:

1) species in Class A shall be totally protected throughout the entire territory of the Contracting States; the hunting, killing, capture or collection of specimens shall be permitted only on the authorization in each case of the highest competent authority and only if required in the national interest or for scientific purposes, and

2) species in Class B shall be totally protected, but may be hunted, killed, captured or collected under special authorization granted by the competent authority.

2. The competent authority of each Contracting State shall examine the necessity of applying the provisions of this article to species not listed in the annex, in order to conserve the indigenous flora and fauna of their respective countries. Such additional species shall be placed in Class A or B by the State concerned, according to its specific requirements.

Article IX. TRAFFIC IN SPECIMENS AND TROPHIES

1. In the case of animal species to which Article VIII does not apply the Contracting States shall:

a) regulate trade in and transport of specimens and trophies;

b) control the application of these regulations in such a way as to prevent trade in specimens and trophies which have been illegally captured or killed or obtained.

2. In the case of plant and animal species to which Article VIII, paragraph (1), applies, the Contracting States shall:

a) take all measures similar to those in paragraph (1);

b) make the export of such specimens and trophies subject to an authorization:

1) additional to that required for their capture, killing or collection by Article VIII

2) which indicates their destination,

3) which shall not be given unless the specimens or trophies have been obtained legally,

4) which shall be examined prior to exportation;

5) which shall be on a standard form, as may be arranged under Article XVI;

c) make the import and transit of such specimens and trophies subject to the presentation of the authorization required under section (*b*) above, with due provision for the confiscation of specimens and trophies exported illegally, without prejudice to the application of other penalties.

Article X. CONSERVATION AREAS

1. The Contracting States shall maintain and extend where appropriate, within their territory and where applicable in their territorial waters, the conservation areas existing at the time of entry into force of the present Convention and, preferably within the framework of land-use planning programmes, assess the necessity of establishing additional conservation areas in order to:

1) protect those ecosystems which are most representative of and particularly those which are in any respect peculiar to their territories;

2) ensure conservation of all species and more particularly of those listed or may be listed in the annex to this Convention;

2. The Contracting States shall establish where necessary, around the borders of conservation areas, zones within which the competent authorities shall control activities detrimental to the protected natural resources.

Article XI. CUSTOMARY RIGHTS

The Contracting States shall take all necessary legislative measures to reconcile customary rights with the provisions of this Convention.

Article XII. RESEARCH

The Contracting States shall encourage and promote research in conservation, utilization and management of natural resources and shall pay particular attention to ecological and sociological factors.

Article XIII. CONSERVATION EDUCATION

1. *a)* The Contracting States shall ensure that their peoples appreciate their close dependence on natural resources and that they understand the need, and rules for, the rational utilization of these resources.

b) For this purpose they shall ensure that the principles indicated in paragraph (1):

1) are included in educational programmes at all levels,

2) form the object of information campaigns capable of acquainting the public with, and winning it over to, the idea of conservation.

2. In order to put into effect paragraph (1) above, the Contracting States shall make maximum use of the educational value of conservation areas.

Article XIV. DEVELOPMENT PLANS

1. The Contracting States shall ensure that conservation and management of natural resources are treated as an integral part of national and/or regional development plans.

2. In the formulation of all development plans, full consideration shall be given to ecological, as well as to economic and social factors.

3. Where any development plan is likely to affect the natural resources of another State, the latter shall be consulted.

Article XV. ORGANIZATION OF NATIONAL CONSERVATION SERVICES

Each Contracting State shall establish, if it has not already done so, a single agency empowered to deal with all matters covered by this Convention, but, where this is not possible a co-ordinating machinery shall be established for this purpose.

Article XVI. INTER-STATE CO-OPERATION

1. The Contracting States shall co-operate:

a) whenever such co-operation is necessary to give effect to the provisions of this Convention, and

b) whenever any national measure is likely to affect the natural resources of any other State.

2. The Contracting States shall supply the Organization of African Unity with:

a) the text of laws, decrees, regulations and instructions in force in their territories, which are intended to ensure the implementation of this Convention,

b) reports on the results achieved in applying the provisions of this Convention, and

c) all the information necessary for the complete documentation of matters dealt with by this Convention if requested.

3. If so requested by Contracting States, the Organization of African Unity shall organize any meeting which may be necessary to dispose of any matters covered by this Convention. Requests for such meetings must be made

by at least three of the Contracting States and be approved by two thirds of the States which it is proposed should participate in such meetings.

4. Any expenditure arising from this Convention, which devolves upon the Organization of African Unity shall be included in its regular budget, unless shared by the Contracting States or otherwise defrayed.

Article XVII. PROVISION FOR EXCEPTIONS

1. The provisions of this Convention shall not affect the responsibilities of Contracting States concerning:

1) the paramount interest of the State,

2) "force majeure",

3) defence of human life.

2. The provisions of this Convention shall not prevent Contracting States:

1) in time of famine,

2) for the protection of public health,

3) in defence of property,

to enact measures contrary to the provisions of the Convention, provided their application is precisely defined in respect of aim, time and place.

Article XVIII. SETTLEMENT OF DISPUTES

Any dispute between the Contracting States relating to the interpretation or application of this Convention, which cannot be settled by negotiation, shall at the request of any party be submitted to the Commission of Mediation, Conciliation and Arbitration of the Organization of African Unity.

Article XIX. SIGNATURE AND RATIFICATION

1. This Convention shall be open for signature immediately after being approved by the Assembly of Heads of State and Government of the Organization of African Unity.

2. This Convention shall be ratified by each of the Contracting States. The instruments of ratification shall be deposited with the Administrative Secretary-General of the Organization of African Unity.

Article XX. RESERVATIONS

1. At the time of signature, ratification or accession, any State may declare its acceptance of this Convention in part only, provided that such reservation may not apply to the provisions of Articles II-XI.

2. Reservations made in conformity with the preceding paragraph shall be deposited together with the instruments of ratification or accession.

3. Any Contracting State which has formulated a reservation in conformity with the preceding paragraph may at any time withdraw it by notifying the Administrative Secretary-General of the Organization of African Unity.

Article XXI. ENTRY INTO FORCE

1. This Convention shall come into force on the thirtieth day following the date of deposit of the fourth instrument of ratification or accession with the Administrative Secretary-General of the Organization of African Unity, who shall inform participating States accordingly.

2. In the case of a State ratifying or acceding to the Convention after the depositing of the fourth instrument of ratification or accession, the Convention shall come into force on the thirtieth day after the deposit by such State of its instrument of ratification or accession.

3. The London Convention of 1933 or any other Convention on the conservation of flora and fauna in their natural state shall cease to have effect in States in which this Convention has come into force.

Article XXII. ACCESSION

1. After the date of approval specified in Article XIX, paragraph (1), this Convention shall be open to accession by any independent and sovereign African State.

2. The instruments of accession shall be deposited with the Administrative Secretary-General of the Organization of African Unity.

Article XXIII. DENUNCIATION

1. Any Contracting State may denounce this Convention by notification in writing addressed to the Administrative Secretary-General of the Organization of African Unity.

2. Each denunciation shall take effect, for such a State, one year after the date of receipt of its notification by the Administrative Secretary-General of the Organization of African Unity.

3. No denunciation shall, however, be made before the expiry of a period of five years from the date at which for the State concerned this Convention comes into force.

Article XXIV. REVISION

1. After the expiry of a period of five years from the date of entry into force of this Convention, any Contracting State may at any time make a request for the revision of part or the whole of this Convention by notification in writing addressed to the Administrative Secretary-General of the Organization of African Unity.

2. In the event of such a request the appropriate organ of the Organization of African Unity shall deal with the matter in accordance with the provision of sections 3 and 4 of Article XVI of this Convention.

3. (i) At the request of one or more Contracting States and notwithstanding the provisions of paragraphs (1) and (2) of this Article, the annex to this Convention may be revised or added to by the appropriate organ of the Organization of African Unity.

(ii) Such revision or addition shall come into force three months after the approval by the appropriate organ of the Organization of African Unity.

Article XXV. FINAL PROVISIONS

The original of this Convention of which both the English and the French texts are authentic, shall be deposited with the Administrative Secretary-General of the Organization of African Unity.

IN WITNESS WHEREOF We, the Heads of State and Government of Independent African States, assembled at Algiers, Algeria, on 15th September 1968 have signed this Convention.

LIST OF PROTECTED SPECIES

CLASS A

Mammalia	*Mammals*
Primates	*Primates*
Lemuroidae	All Malagasy lemuroids
Macaca sylvana	Barbary ape
Theropithecus gelada	Gelada baboon
Cercocebus galeritus galeritus	Tana River mangabey
Cercopithecus diana	Diana monkey
Colobus badius kirkii	Zanzibar red colobus
Colobus badius rufomitratus	Tana River red colobus
Colobus badius gordonorum	Uhehe red colobus
Colobus verus	Green colobus
Pan troglodytes	Chimpanzee
Pan paniscus	Pygmy chimpanzee
Gorilla gorilla	Gorilla
Rodentia	*Rodentia*
Epixerus spp.	African palm squirrels
Carnivora	*Carnivora*
Canis simensis	Simenian jackal
Osbornictis piscivora	Water civet
Fossa fossa	Malagasy civet
Eupleres spp.	*Falanouc*
Felis nigripes	Black-footed cat
Felis aurata	African golden cat
Acinonyx jubatus	Cheetah
Pinnipedia	*Pennipedia*
Monachus monachus	Mediterranean monk seal
Sirenia	*Sirenia*
Dugong dugon	Dugong
Trichechus senegalensis	West African manatee
Perissodactyla	*Perissodactyla*
Equus asinus	Wild ass
Equus zebra zebra	Cape mountain zebra
Ceratotherium simum	Square-lipped rhinoceros
Artiodactyla	*Artiodactyla*
Choeropsis liberiensis	Pygmy hippopotamus
Cervus elaphus barbarus	Barbary stag
Okapia johnstoni	Okapi
Tourotragus derbianus derbianus	Western giant eland
Cephalophus jentinki	Jentink's duiker
Hippotragus niger variani	Giant sable antelope
Alcelaphus buselaphus tora	Tora Hartebeest
Alcelaphus buselaphus swaynei	Swayne's hartebeest
Nesotragus moschatus moschatus	Zanzibar suni
Dorcatragus megalotis	Beira antelope

Gazella dorcas neglecta	Algerian dorcas gazelle
Gazella dorcas massaesyla	Moroccan dorcas gazelle
Gazella gazella cuvieri	Cuvier's gazelle
Gazella leptocerus leptocerus	Slender-horned gazelle
Gazella pelzelni	Pelseln's gazelle
Gazella spekei	Speke's gazelle
Gazella dama mhorr	Mhorr gazelle
Gazella dama lazonoi	Rio de Oro dama gazelle
Gapra walie	Walia ibex
Aves	*Birds*
Pelecanidae	All pelicans
Ciconiidae, Scopidae et Ardeidae	All storks, hammerkops, ibises, spoonbills, herons, egrets and bitterns
Phoenicopteridae	All Flamingos
Sagittarius serpentarius	Secretary bird
Aegypius, Gyps, Pseudogyps, Torgos Trigonoceps, Neophron et Necrosyrtes	All vultures[1]
Gypaëtus barbatus	Lammergeyer
Stephanoaëtus coronatus	Crowned hawk-eagle
Falco fasciinucha	Teita falcon
Agelastes meleagrides	White-headed guineafowl
Afropavo congensis	Congo peacock
Gruidae	All cranes
Bucorvus spp.	All ground bornbills
Picarthartes oreas	White-necked rockfowl
Picarthartes gymnocephalus	Grey-necked rockfowl
Warsanglia johannis	Warsangli linnet
Reptilia	*Reptiles*
Cheloniidae, Dermochelyidae	All marine turtles
Testudo gigantea	Giant tortoise
Testudo yniphora	Angulated tortoise
Testudo radiata	Testudo radiata
Macroscinous coctei	Cape Verde skink
Gecko uroplates	Leaf-tailed gecko
Casarea dussumieri	Plate Island boa
Bolieria multicarinata	Ronde Island boa
Acrantophis madagascariensi	Acrantophis madagascariensi
Acrantophis dumerili	Acrantophis dumerili
Amphibia	*Amphibians*
Bufo superciliaris	Cameroon toad
Nectophrynoides occidentalis	Viviparous toad
Pisces	*Fishes*
Caecobarbus, Caecomastacembelus	Blind fishes
Eilichthys, Typhleotris	Blind fishes
Phreatichthys, Uegitglanis	Blind fishes
Plantes	*Plants*
Welwitschia bainesii	Welwitschia
Encephalartos laurentanus	Encephalartos
Encephalartos septentrionalis	Encephalartos

[1] The term "All vultures" has been placed erroneously opposite the first line of the Latin term "*Aegypius, Gyps, Pseudogyps, Torgos Trigonoceps, Neophron et Necrosyrtes*", thus displacing each translation up to and including that corresponding to "*Warsanglia johannis*" by one line.

CLASS B

Mammalia	*Mammals*
Insectivora	*Insectivora*
	All other shrews of the family Potamogalidae
Primates	*Primates*
Lorisidae	All prosimians of the family Lorisidae
Primates	
	All monkeys except common baboons
Pholidota	*Pholidota*
Manis gigantea	Giant pangolin
Manis temmincki	Cape pangolin
Manis tricuspis	Tree pangolin
Manis longicaudata	Long-tailed tree pangolin
Carnivora	*Carnivora*
Lutrinae	All otters of the sub family Lutrinae
Proteles cristatus	Aardwolf
Hyaena brunnea	Brown hyaena
Hyaena hyaena barbara	Barbary hyaena
Felis caracal	Caracal lynx
Felis serval	Serval
Felis leo	Lion
Panthera pardus	Leopard
Tenrecidae	Madagascar Tenrecs (all species) Fossa
Cryptoprocta ferox	Foassa
Galidiinae	All Malagasy mongooses of the sub family Galidiinae
Tubulidentata	*Tubulidentata*
Orycteropus afer	Aardvark
Proboscidea	*Proboscidea*
Loxodonta africana	Elephant
Perissodactyla	*Perissodactyla*
Equus zebra bartmannae	Hartmann's mountain zebra
Equus burchelli	Burchell's zebra
Equus grevyi	Grevy's zebra
Diceros bicornis	Black rhinoceros
Hylochoerus meinertzhageni	*Artiodactyla*[1]
Hippopotamus amphibius	Giant forest hog
Hyemoschus aquaticus	Hippopotamus
Giraffa camelopardalis	Water chevrotain
Tragelaphus angasi	Giraffe
Tragelaphus buxtoni	Nyala
Tragelaphus spekei	Mountain nyala
Tragelaphus imberbis	Situtunga
Tragelaphus strepsiceros	Lesser kudu
Taurotragus oryx	Greater kudu
Taurotragus derbianus	Eland
Boocercus eurycerus	Giant eland
Syncerus caffer	Bongo
Cephalophus adorsi	Buffalo
Cephalophus ogilbyi	Zanzibar duiker
Cephalophus silvicultor	Ogilby's duiker
Cephalophus spadix	Yellow-baked duiker
Cephalophus zebra	Abbott's duiker
Kobus ellipsiprymnus	Banded duiker
Kobus defassa	Waterbuck

[1] The title "*Artiodactyla*" has been placed erroneously opposite the Latin term "hylochoerus meinertzhageni", thus displacing each translation up to and including that corresponding to "Adenota Kob" by one line; "*Artiodactyla*" should also appear as the title for the Latin term list.

Kobus leche	Defassa waterbuck
Kobus megaceros	Lechwe
Adenota kob	Nile lechwe
	Kob
Redunca arundinum	Reedbuck
Redunca fulvorufula	Mountain reedbuck
Redunca equinus	Bohor reedbuck
Hippotragus equinus	Roan antelope
Hippotragus niger	Sable antelope
Oryx gazella	Oryx
Oryx tao	Scimitar-horned oryx
Adax nasomaculatus	Addax
Damaliscus lunatus	Tsessebe (Sassaby)
Damaliscus korrigum	Topi
Damaliscus dorcas dorcas	Bontebok
Damaliscus dorcas phillipsi	Blesbok
Damaliscus hunteri	Hunter's hartebeest
Alcelaphus buselaphus	Hartebeest
Alcelaphus lichtensteini	Lichtenstein's hartebeest
Connochaetes gnou	Black wildebeest
Connochaetes taurinus	Wildebeest
Oreotragus oreotragus	Klipspringer
Ourebia spp.	Oribis (All species)
Neotragus pygmaeus	Royal antelope
Neotragus batesi	Dwarf antelope
Madoqua kirki	Damara dikdik
Aepyceros melampus	Impala
Ammodorcas clarkei	Dibatag
Litodranius walleri	Gerenuk
Gazella dorcas	Dorcas gazelle
Gazella rufifrons	Korin gazelle
Gazella tilonura	Houglin's gazelle
Gazella dama	Dama gazelle
Gazella soemmerringi	Doemmering's gazelle
Capra ibex nubiana	Nubian ibex
Ammotragus lervia	Barbary sheep (Aoudad)
Aves	*Birds*
Struthio camelus	Ostrich
Falconiformes et strigiformes	All birds of prey and all owls not in [Class A]
Otididae	All bustards
Reptilia	*Reptiles*
Crocodylia	All crocodiles

Convention on the Conservation of the Living Resources of the Southeast Atlantic, Rome, 1969

Done at Rome 23 October 1969

*Entered into force 24 October 1971**

Depositary: Food and Agriculture Organization of the United Nations

Primary source citation: 801 UNTS 101

CONVENTION ON THE CONSERVATION OF THE LIVING RESOURCES OF THE SOUTHEAST ATLANTIC

Preamble

The Governments of the States parties to this Convention, considering their mutual interest in the living resources of the Southeast Atlantic and desiring to cooperate in the conservation and rational exploitation of these resources, have agreed as follows:

Article I

1. The area to which this Convention shall apply, hereinafter referred to as the "Convention Area," shall be all waters bounded by a line drawn as follows:

> Beginning at a point at 6°04′36″ South latitude and 12°19′48″ East longitude, thence in a northwesterly direction along a rhumb line to the point at the intersection of the meridian 12° East with the parallel 6° South, thence due west along this parallel to the meridian 20° West, thence due south along this meridian to the parallel 50° South, thence due east along this parallel to the meridian 40° East, thence due north along this meridian to the coast of the African continent, thence in a westerly direction along this coast to the original point of departure.

2. The eastern boundary at the meridian 40° East shall be reviewed if a convention for the conservation of the living resources of the sea is established applying to an area immediately adjacent to that boundary.

* This Convention is not in force for the United States.

Article II

Nothing in this Convention shall be considered as affecting the rights, claims or views of any Contracting Party in regard to the limits of the territorial sea or to the extent of jurisdiction over fisheries under international law.

Article III

This Convention shall apply to all fish and other living resources in the Convention Area, with the exception of any such resources as may be excluded pursuant to arrangements or agreements entered into by the Commission in accordance with paragraph 1 of Article XI of this Convention.

Article IV

The Contracting Parties hereby agree to establish and to maintain a Commission to be known as the International Commission for the Southeast Atlantic Fisheries, hereinafter referred to as the "Commission," which shall carry out the functions set forth in this Convention.

Article V

1. The Commission shall hold a regular session at least once every two years. A special session shall be called at any time at the request of one Contracting Party provided that such request is supported by at least three other Contracting Parties.

2. Each of the Contracting Parties shall be represented on the Commission by not more than three Commissioners who may be accompanied by experts and advisers.

3. Each Contracting Party shall have one vote in the Commission. Except as may be otherwise provided in this Convention, decisions of the Commission shall be taken by a majority of two thirds of the Contracting Parties present and voting. Two thirds of the Contracting Parties shall constitute a quorum.

4. At each regular session the Commission shall elect from among the Commissioners the following officers: a Chairman, a First Vice-Chairman and a Second Vice-Chairman. These officers shall remain in office until the election of their successors at the next regular session and shall not be eligible to serve for more than two consecutive terms in the same office. A commissioner, when acting as Chairman, shall not vote.

5. The working languages of the Commission shall be English, French and Spanish.

6. The Commission shall adopt such rules of procedure and other internal administrative regulations as are necessary to carry out its functions. The rules of procedure of subsidiary bodies established by the Commission under Article VII may be adopted by such subsidiary bodies, but shall only enter into force upon approval by the Commission.

Article VI

1. In order to achieve the objectives set out in this Convention, the Commission shall be responsible for the study of all fish and other living resources in the Convention Area. Such study shall include research on the abundance, life history, biometry and ecology of these resources; and the study of their environment. In undertaking the study of these matters, the Commission shall collect, analyse, publish and disseminate, by all appropriate means, statistical, biological and other scientific information on the said resources.

2. The Commission, in carrying out its responsibilities shall, insofar as feasible, utilize the technical and scientific services of, and information from, official agencies of the Contracting Parties. The Commission may, when

necessary, utilize other services and information, and may also undertake, within the limits of its supplementary budget, independent research to supplement the research being done by governments, national institutions or other international organizations.

3. The Contracting Parties shall furnish, on the request of the Commission, any available statistical and other data and information the Commission may need for the purposes of the Convention.

Article VII

1. The Commission may establish a Regional Committee for each of the regions into which the Convention Area may be divided on an ecological basis and a Stock Committee with respect to any stock to be found in the Convention Area. The Commission may also establish a Scientific Advisory Council, hereinafter referred to as the "Council." The Commission may establish such other subsidiary bodies as are necessary for the performance of its functions, determining their composition and terms of reference in each case.

2. Regional Committees shall have the functions specified in this Article, except with respect to any stock for which a Stock Committee is competent.

3. A Regional or Stock Committee may initiate, on the basis of the results of scientific investigations, proposals regarding measures that are applicable to the region or stock for which it has been established and shall consider any proposals that may be referred to it by the Commission.

4. A Regional or Stock Committee may prepare draft recommendations for consideration by the Commission. The Commission may adopt such draft recommendations, with any amendments it may consider desirable, in accordance with Article VIII of this Convention.

5. The Commission shall designate the Contracting Parties that may be represented on a Regional or Stock Committee. However, when a Regional or Stock Committee is established a Contracting Party shall automatically have the right to be represented thereon if it fishes in the region; or if it exploits the stock concerned; or if it has a coastline adjacent to the region concerned or the area where the stock is to be found. If a Contracting Party exploits a stock outside the region covered by a Regional or Stock Committee, it may be eligible to be represented thereon if the Commission so decides.

6. The functions of the Council shall be to advise and assist the Commission and its Regional and Stock Committees with respect to the scientific aspects of their responsibilities.

7. Each Contracting Party may send a delegation of scientists to the Council composed of as many experts as it wishes. The Council may establish subsidiary bodies and determine their composition.

8. The Council may, with the concurrence of the Commission, invite other scientists or expert to participate in its deliberations in an advisory capacity.

9. The Council shall hold regular sessions whose timing shall be determined by the Commission in relation to its regular sessions. The Council may hold special sessions subject to the approval of the Commission.

Article VIII

1. The Commission may make, on its own initiative or on the proposal of a Regional or Stock Committee and on the basis of the results of scientific investigations, recommendations relating to the objectives of this Convention. These recommendations shall become binding on the Contracting Parties under the conditions laid down in Article IX.

2. The matters with respect to which the Commission may make recommendations shall be:

(*a*) the regulation of the sizes of mesh of fishing nets;

(*b*) the regulation of the size limits of fish that may be retained on board any fishing craft or landed, or exposed or offered for sale;

(*c*) the establishment of open and closed seasons;

(*d*) the establishment of open and closed areas;

(*e*) the regulation of fishing gear and appliances, other than regulation of the size of mesh of fishing nets;

(*f*) the improvement and the increase of living resources, which may include artificial propagation, the transplantation and acclimatization of organisms, the transplantation of young, and predator control;

(*g*) the regulation of the total catch by species, group of species or, if appropriate, by regions; and

(*h*) any other type of measure directly related to the conservation of all fish and other living resources in the Convention Area.

3. (*a*) If the Commission makes a recommendation under paragraph 2 (g) of this Article, it may invite the Contracting Parties concerned, as determined by the Commission, to elaborate agreements on the allocation of a total catch quota taking into account the fishing interests of all the countries concerned and ensuring, as far as possible, that all the countries concerned abide by the Commission's recommendation for a total catch quota and by any agreed allocation.

(*b*) the terms of any such agreement shall be reported by the Contracting Parties concerned to the Commission as soon as possible. Without prejudice to the binding force of such agreements on the parties thereto, the Commission may thereupon make recommendations, pursuant to paragraph 1 of this Article, on the subject matter of the said agreements.

4. The Commission shall notify all Contracting Parties of recommendations adopted by the Commission.

Article IX

1. Subject to the provisions of this Article, the Contracting Parties undertake to give effect to any recommendation adopted by the Commission in accordance with Article VIII.

2. Any Contracting Party may, within ninety days of notification of a recommendation, present an objection to it to the Commission and in that event shall not be under an obligation to give effect to the recommendation.

3. If an objection is presented within the ninety-day period referred to in the preceding paragraph any other Contracting Party may present an objection at any time within a further period of sixty days or within thirty days after notification of an objection presented by another Contracting Party made within the further sixty-day period.

4. If objections to a recommendation are presented by at least three Contracting Parties, all the other Contracting Parties shall be relieved forthwith of any obligation to give effect to that recommendation; nevertheless, any or all of them may agree among themselves to give effect to it.

5. Any Contracting Party which has presented an objection to a recommendation may at any time withdraw that objection and shall then, subject to the provisions of the preceding paragraph, give effect to the recommendation within ninety days.

6. The Commission shall notify all Contracting Parties of each objection or withdrawal immediately upon receipt thereof.

Article X

1. Without prejudice to the rights of States in the waters in which they are entitled under international law to exercise jurisdiction over fisheries, each Contracting Party shall take appropriate measures, in its territories and in these waters with respect to all persons and vessels, and beyond these waters with respect to its nationals and vessels, to ensure the implementation of the provisions of the present Convention and the recommendations of the Commission which have become binding on that Contracting Party, and to apply sanctions for the violation of such recommendations.

2. The Contracting Parties undertake to collaborate with each other with a view to the adoption of effective measures to ensure the implementation of this Convention and the achievement of its objectives.

3. In addition, the Contracting Parties undertake to collaborate with each other with a view to setting up, upon a recommendation by the Commission, a system of international enforcement of such recommendations as the Commission may select for inclusion under the said system, except in the waters in which a State is entitled under international law to exercise jurisdiction over fisheries. The adoption and implementation of such a recommendation shall be governed by Articles VIII and IX of this Convention.

4. The Contracting Parties shall transmit to the Commission, biennially, or at such times as may be required by the Commission, a statement of the action that they have taken pursuant to this Article.

Article XI

1. The Commission shall seek to conclude agreements and maintain working arrangements with other international organizations which have related objectives, and in particular the Food and Agriculture Organization of the United Nations, to ensure effective collaboration and coordination and to avoid duplication with respect to their work.

2. The Commission may invite any appropriate international organization and the Government of any State eligible to become a party to this Convention under Article XVII, but which is not a member of the Commission, to be represented in an observer capacity at sessions of the Commission or its subsidiary bodies.

Article XII

1. The Commission shall appoint an Executive Secretary on such conditions as it may determine.

2. The staff of the Commission shall be appointed by the Executive Secretary in accordance with such rules and on such conditions as may be determined by the Commission.

3. The Executive Secretary shall perform such functions as the Commission may prescribe, including the following:

(*a*) receiving and transmitting the Commission's official communications;

(*b*) preparing budget estimates for review by the Commission at its regular sessions;

(*c*) preparing for submission to the Commission at its regular sessions report on the Commission's activities and the programme of work, an arranging for the subsequent publication of this report and the proceedings of the Commission;

(*d*) arranging for the collection and analysis of statistics and other data necessary to accomplish the purposes of this Convention;

(*e*) preparing for submission to the Commission, and for possible subsequent publication, reports on statistical, biological and other matters;

(*f*) authorizing the disbursement of funds in accordance with the Commission's budget;

(*g*) accounting for the funds of the Commission; and

(*h*) arranging for cooperation with international organizations as provided for under Article XI of this Convention.

Article XIII

1. At each regular session the Commission shall adopt a budget for the following fiscal period and budget estimates for the fiscal period following thereafter. The fiscal period shall be two years. However, should the Commission hold more than one regular session during a fiscal period, it may revise the current budget if required. Subject to the agreement of all Contracting Parties, the Commission may, at any session, adopt a supplementary budget.

2. The contributions to the budget and any supplementary budget to be paid by each Contracting Party shall be payable in such currency or currencies and at such time as the Commission shall decide.

3. The voting rights of any Contracting Party whose arrears of contributions equal or exceed its total contribution falling due in the preceding fiscal period shall be suspended unless the Commission decides otherwise.

4. The Commission may also accept from any private or public sources other contributions for the furtherance of its objectives. Such contributions shall be used and administered in accordance with rules to be adopted by the Commission.

5. The Commission shall arrange for an annual independent audit of its accounts to be made and submitted for review and approval by the Commission.

6. The Commission shall establish a Working Capital Fund to finance operations of the Commission prior to receiving annual contributions, and for such other purposes as the Commission may determine. The Commission shall fix the level of the Fund, assess advances necessary for its establishment and adopt regulations governing its use.

Article XIV

The Commission shall calculate the contributions to be made by the Contracting Parties to the budget including any supplementary budget according to the following formula:

(*a*) One third of the total amount of the budget including any supplementary budget shall be contributed by the Contracting Parties in equal parts;

(*b*) Each Contracting Party shall contribute in respect of each Regional or Stock Committee of which it is a member an amount equivalent to one third of its contribution under subparagraph (*a*) above. This proportion shall be reduced, if necessary, in order that the total amount contributed by the Contracting Parties under this subparagraph shall not exceed one third of the total budget including any supplementary budget;

(*c*) Any remaining portion of the budget including any supplementary budget shall be contributed by each Contracting Party in the proportion that its nominal catch in the Convention Area bears to the aggregate nominal catch of all Contracting Parties in that Area. In computing this catch the Commission shall take into account all fishes, crustaceans, molluscs and other marine invertebrates, with the exception of such species as may be excluded from the application of this Convention in accordance with Article III. The catch shall be determined on the basis of the average for the last two calendar years for which statistics have been published by the Food and Agriculture Organization of the United Nations.

Article XV

1. The Commission shall determine where its seat shall be situated.

2. The Commission shall have legal personality. It shall, in particular, have capacity to contract, and to acquire and dispose of movable and immovable property.

Article XVI

The provisions of this Convention shall not apply to fishing operations conducted solely for the purposes of scientific investigations, by vessels authorized by a Contracting Party for that purpose, or to fish taken in the course of such operations. However, fish so taken shall not be sold, or exposed or offered for sale in violation of a recommendation of the Commission.

Article XVII

1. This Convention shall be open for signature by the Government of any State represented at the Conference which adopted the Convention, or by the Government of any other State which is a Member of the United Nations or of any specialized agency of the United Nations.

2. Signature of this Convention shall be subject to ratification, acceptance or approval.

3. Once this Convention has entered into force, any State referred to in paragraph I of this Article which has not signed the Convention or any other State unanimously invited by the Commission to become a party to the Convention may adhere to it.

4. Instruments of ratification, acceptance, approval or adherence shall be deposited with the Director-General of the Food and Agriculture Organization of the United Nations, hereinafter referred to as the "Depositary."

5. Ratification acceptance, approval or adherence may not be made subject to any reservation.

Article XVIII

1. This Convention shall enter into force on the thirtieth day following the date of deposit of at least four instruments of ratification, acceptance or approval, provided that the weight of the aggregate nominal catch in the Convention Area of the countries having deposited such instruments amounts to at least seven hundred thousand metric tons on the basis of the statistics published by the Food and Agriculture Organization of the United Nations for the year one thousand nine hundred and sixty-eight.

2. After the entry into force of this Convention in accordance with paragraph I of this Article, the Convention shall enter into force for each State whose Government deposits an instrument of ratification, acceptance, approval or adherence on the thirtieth day following the date on which such instrument is received by the Depositary.

Article XIX

1. Any Contracting Party may propose amendments to this Convention which shall be referred to the Commission for approval at a regular or special session. Proposals for the amendment of the Convention shall be communicated to the Depositary who shall inform the Contracting Parties thereof. Any amendment shall take effect for each Contracting Party accepting the amendment on the ninetieth day after its acceptance by three fourths of the Contracting Parties and thereafter for each remaining Contracting Party on the day on which the Depositary receives the notification of such acceptance.

2. Any State which becomes a Contracting Party after an amendment to the Convention has been proposed for acceptance pursuant to the provisions of this Article shall be bound by the Convention as amended when the said amendment comes into force.

Article XX

At any time after ten years from the date of entry into force of this Convention, any Contracting Party may withdraw from the Convention by giving written notification of withdrawal. Withdrawal shall take effect on December thirty-first of the calendar year following the year in which notification of withdrawal was communicated to the Depositary.

Article XXI

1. The Depositary shall inform the Governments of the States referred to in paragraphs 1 and 3 of Article XVII:

(*a*) of the signature of this Convention and of the deposit of instruments of ratification, acceptance, approval or adherence in accordance with Article XVII;

(*b*) of the date on which the Convention will come into force in accordance with paragraph 1 of Article XVIII.

2. The Depositary shall inform all Contracting Parties:

(*a*) of proposals for the amendment of the Convention, notification of acceptance of such amendments and the entry into force of amendments, in accordance with Article XIX;

(*b*) of notification of withdrawal made in accordance with Article XX.

3. The original of this Convention shall be deposited with the Depositary who shall send certified copies thereof to the Governments of the States eligible to become parties to this Convention in accordance with Article XVII.

DONE at Rome this twenty-third of October one thousand nine hundred and sixty-nine, in a single copy in the English, French and Spanish languages each version being equally authoritative.

ANNEX I

CONFERENCE OF PLENIPOTENTIARIES ON THE CONSERVATION OF THE LIVING RESOURCES OF THE SOUTHEAST ATLANTIC

Rome, Italy, 14 to 23 October 1969.

FINAL ACT

1. The Conference of the Food and Agriculture Organization of the United Nations, at its Fourteenth Session held in Rome in November 1967, authorized the Director-General of that Organization to call a Conference of Plenipotentiaries to prepare and adopt a Convention for the purpose of establishing a Commission for the conservation of the living resources of the Southeast Atlantic.

2. The Conference of Plenipotentiaries on the Conservation of the Living Resources of the Southeast Atlantic met at the Headquarters of the Food and Agriculture Organization of the United Nations in Rome from 14 to 23 October 1969.

3. The Governments of the following twelve States were represented: Belgium, Cuba, France, Germany (Federal Republic of), Italy, Japan, Korea (Republic of), Panama, Portugal, South Africa (Republic of), Spain, Togo.

4. The Governments of the following five States were represented by observers: Brazil, China (Republic of), Ecuador, Poland, United States of America.

5. The Honourable Vittorino Colombo, Minister of Merchant Marine of Italy, and Mr. Roy I. Jackson, Assistant Director-General (Fisheries) of the Food and Agriculture Organization of the United Nations, addressed the Conference.

6. The Conference elected Mr. R. A. Lagarde (France) as President.

7. The Conference elected as Vice-Presidents: Cuba, Italy, Japan, Korea (Republic of), Portugal, South Africa (Republic of), Spain.

8. The following committees were set up:

General Committee
Chairman: The President of the Conference

Main Committee
Chairman: Mr. G. Möcklinghoff (Federal Republic of Germany)

Drafting Committee
Chairman: Dr. O. Rodríguez Martin (Spain)

Credentials Committee
Chairman: H.E. René Van Hauwermeiren (Belgium)

9. The Director-General of the Food and Agriculture Organization of the United Nations was represented by Mr. F. E. Popper in his capacity as Secretary-General of the Conference.

10. The Conference had before it a draft Convention prepared by the Secretariat of the Food and Agriculture Organization of the United Nations and comments thereon submitted by Governments.

11. On the basis of its deliberations, the Conference prepared and opened for signature the Convention which is reproduced in Annex I hereto. The Convention will remain open for signature at the Headquarters of the Food and Agriculture Organization of the United Nations in Rome.

12. In addition, the Conference adopted the two Resolutions which are reproduced as Annexes II and III hereto.

IN WITNESS WHEREOF the following representatives have signed this Final Act:

For Belgium:

R. VAN HAUWERMEIREN

For Cuba:

MARCOS ANTONIO SANTANDER PÁEZ
JESÚS NARCISO ALVAREZ RODRÍGUEZ

For France:

ROGER LAGARDE

For the Federal Republic of Germany:

ROLF LAHR

For Italy:

UMBERTO PORZIO

For Japan:

TOKICHI TAKANO
M. TAKASHIMA
KYO ANDO

For the Republic of Korea:

JAE HUNG YU
JU IN SONG

For Portugal:

JOAQUIM CARLOS ESTEVES CARDOSO
PEDRO GUERREIRO DA FRANCA
VASCO VALDEZ BANDEIRA
JOÃO SA COUTINHO SOTO MAIOR

For the Republic of South Africa:

JOHANNES JACOBUS KITSHOFF

For Spain:

OLEGARIO RODRÍGUEZ MARTÍN
A. FERNÁNDEZ GONZÁLEZ

For Togo:

G. SALAMI

DONE at Rome this twenty-third day of October one thousand nine hundred and sixty-nine in a single copy in the English, French and Spanish languages, each text being equally authentic. The original texts shall be deposited in the archives of the Food and Agriculture Organization of the United Nations.

ANNEX II

RESOLUTION No. 1

The Conference

Agreeing that it is highly desirable and necessary to establish machinery for adequate medical, technical and meteorological services for the protection of the fishermen working on board fishing vessels on the high seas in the area covered by the Convention on the Conservation of the Living Resources of the Southeast Atlantic;

Considering that, in the opinion of the Delegates present, it is possible and desirable to create an international system which would provide an effective solution to the problems of deep-sea fishermen, in the Convention Area, with regard to cases of acute illness or the consequences of accidents or other perils to which fishermen may fall victim;

Suggests to all countries adjoining the Southeast Atlantic area or having fisheries interests therein, and who are eligible to become members of the Commission under the above-mentioned Convention, that they should collaborate, in conjunction with any specialized agencies of the United Nations which they deem appropriate, in establishing an international service for the protection of fishermen working in the Convention Area; and further

Invites the member countries of the Commission to develop a plan designed to meet the aims set forth in this Resolution.

ANNEX III

RESOLUTION No. 2

The Conference

Noting that certain stocks in the Convention Area appear to be heavily exploited, as described in Supplement 1 to the Report of the fifth session (July 1968) of the FAO Advisory Committee on Marine Resources Research (ACMRR), and that measures to conserve these stocks are becoming urgently needed;

Recognizing that the formulation of necessary measures should be based on sound scientific advice, and that such advice is best obtained from working parties of scientists in which the expertise and data from all countries can be combined;

Noting that the studies reported in the above-mentioned ACMRR Report were based on data not more recent than 1967, and that the proposed Commission on the Conservation of the Living Resources of the Southeast Atlantic will not itself be able to set up such a group for some time;

Believing that it would greatly assist the proposed Commission at its first session if a similar group could meet and prepare a further report on the state of the stocks and on the effect of possible regulatory measures, for submission to member countries in advance of the first session;

Urges all countries that are eligible to become a party to the Convention that exploit the resources of the Southeast Atlantic to facilitate the attendance of suitable experts, and to arrange for the submission of statistical and other material; and

Invites the Director-General of the Food and Agriculture Organization of the United Nations to consult with all the countries invited to participate in the Conference with a view to his providing facilities for the holding of a meeting in Rome, as soon as possible after the first session of the International Commission for the Conservation of Atlantic Tunas, 1-6 December 1969.

DECLARATION MADE UPON APPROVAL OF THE CONVENTION BY THE UNION OF SOVIET SOCIALIST REPUBLICS

[TRANSLATION[1]]

Signing the Convention on the Conservation of the Living Resources in the Southeast Atlantic, the Union of Soviet Socialist Republics considers it necessary to declare that the statements contained in Article XVII of the Convention according to which a number of States are deprived of the possibility of becoming participants in the Convention are of discriminative nature. The USSR believes that in conformity with the principle of sovereign equality of States the Convention has to be open to participation of all the States concerned without any discrimination or limitation.

[1] Translation supplied by the Food and Agriculture Organization of the United Nations.

Convention on Wetlands of International Importance Especially as Waterfowl Habitat, Ramsar, 1971

Done at Ramsar 2 February 1971

Entered into force 21 December 1975

Depositary: United Nations Educational, Scientific and Cultural Organization

Primary source citation: TIAS 11084

CONVENTION ON WETLANDS OF INTERNATIONAL IMPORTANCE ESPECIALLY AS WATERFOWL HABITAT

The Contracting Parties,

Recognizing the interdependence of man and his environment;

Considering the fundamental ecological functions of wetlands as regulators of water régimes and as habitats supporting a characteristic flora and fauna, especially waterfowl;

Being convinced that wetlands constitute a resource of great economic, cultural, scientific and recreational value, the loss of which would be irreparable;

Desiring to stem the progressive encroachment on and loss of wetlands now and in the future;

Recognizing that waterfowl in their seasonal migrations may transcend frontiers and so should be regarded as an international resource;

Being confident that the conservation of wetlands and their flora and fauna can be ensured by combining far-sighted national policies with co-ordinated international action;

Have agreed as follows:

ARTICLE I

1. For the purpose of this Convention wetlands are areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres.

2. For the purpose of this Convention waterfowl are birds ecologically dependent on wetlands.

ARTICLE 2

1. Each Contracting Party shall designate suitable wetlands within its territory for inclusion in a List of Wetlands of International Importance, hereinafter referred to as "the List" which is maintained by the bureau established under Article 8. The boundaries of each wetland shall be precisely described and also delimited on a map and they may incorporate riparian and coastal zones adjacent to the wetlands, and islands or bodies of marine water deeper than six metres at low tide lying within the wetlands, especially where these have importance as waterfowl habitat.

2. Wetlands should be selected for the List on account of their international significance in terms of ecology, botany, zoology limnology or hydrology. In the first instance wetlands of international importance to waterfowl at any season should be included.

3. The inclusion of a wetland in the List does not prejudice the exclusive sovereign rights of the Contracting Party in whose territory the wetland is situated.

4. Each Contracting Party shall designate at least one wetland to be included in the List when signing this Convention or when depositing its instrument of ratification or accession, as provided in Article 9.

5. Any Contracting Party shall have the right to add to the List further wetlands situated within its territory, to extend the boundaries of those wetlands already included by it in the List, or, because of its urgent national interests, to delete or restrict the boundaries of wetlands already included by it in the List and shall, at the earliest possible time, inform the organization or government responsible for the continuing bureau duties specified in Article 8 of any such changes.

6. Each Contracting Party shall consider its international responsibilities for the conservation, management and wise use of migratory stocks of waterfowl, both when designating entries for the List and when exercising its right to change entries in the List relating to wetlands within its territory.

ARTICLE 3

1. The Contracting Parties shall formulate and implement their planning so as to promote the conservation of the wetlands included in the List, and as far as possible the wise use of wetlands in their territory.

2. Each Contracting Party shall arrange to be informed at the earliest possible time if the ecological character of any wetland in its territory and included in the List has changed, is changing or is likely to change as the result of technological developments, pollution or other human interference. Information on such changes shall be passed without delay to the organization or government responsible for the continuing bureau duties specified in Article 8.

ARTICLE 4

1. Each Contracting Party shall promote the conservation of wetlands and waterfowl by establishing nature reserves on wetlands, whether they are included in the List or not, and provide adequately for their wardening.

2. Where a Contracting Party in its urgent national interest, deletes or restricts the boundaries of a wetland included in the List, it should as far as possible compensate for any loss of wetland resources, and in particular it should create additional nature reserves for waterfowl and for the protection, either in the same area or elsewhere, of an adequate portion of the original habitat.

3. The Contracting Parties shall encourage research and the exchange of data and publications regarding wetlands and their flora and fauna.

4. The Contracting Parties shall endeavour through management to increase waterfowl populations on appropriate wetlands.

5. The Contracting Parties shall promote the training of personnel competent in the fields of wetland research, management and wardening.

ARTICLE 5

The Contracting Parties shall consult with each other about implementing obligations arising from the Convention especially in the case of a wetland extending over the territories of more than one Contracting Party or where a water system is shared by Contracting Parties.

They shall at the same time endeavour to co-ordinate and support present and future policies and regulations concerning the conservation of wetlands and their flora and fauna.

ARTICLE 6

1. The Contracting Parties shall, as the necessity arises, convene Conferences on the Conservation of Wetlands and Waterfowl.

2. These Conferences shall have an advisory character and shall be competent inter alia:

(a) to discuss the implementation of this Convention;

(b) to discuss additions to and changes in the List;

(c) to consider information regarding changes in the ecological character of wetlands included in the List provided in accordance with paragraph 2 of Article 3;

(d) to make general or specific recommendations to the Contracting Parties regarding the conservation, management and wise use of wetlands and their flora and fauna;

(e) to request relevant international bodies to prepare reports and statistics on matters which are essentially international in character affecting wetlands.

3. The Contracting Parties shall ensure that those responsible at all levels for wetlands management shall be informed of, and take into consideration, recommendations of such Conferences concerning the conservation, management and wise use of wetlands and their flora and fauna.

ARTICLE 7

1. The representatives of the Contracting Parties at such Conferences should include persons who are experts on wetlands or waterfowl by reason of knowledge and experience gained in scientific, administrative or other appropriate capacities.

2. Each of the Contracting Parties represented at a Conference shall have one vote, recommendations being adopted by a simple majority of the votes cast, provided that not less than half the Contracting Parties cast votes.

ARTICLE 8

1. The International Union for the Conservation of Nature and Natural Resources shall perform the continuing bureau duties under this Convention until such time as another organization or government is appointed by a majority of two-thirds of all Contracting Parties.

2. The continuing bureau duties shall be, inter alia:

(a) to assist in the convening and organizing of Conferences specified in Article 6;

(b) to maintain the List of Wetlands of International Importance and to be informed by the Contracting Parties of any additions, extensions, deletions or restrictions concerning wetlands included in the List provided in accordance with paragraph 5 of Article 2;

(c) to be informed by the Contracting Parties of any changes in the ecological character of wetlands included in the List provided in accordance with paragraph 2 of Article 3;

(d) to forward notification of any alterations to the List, or changes in character of wetlands included therein, to all Contracting Parties and to arrange for these matters to be discussed at the next Conference;

(e) to make known to the Contracting Party concerned, the recommendations of the Conferences in respect of such alterations to the List or of changes in the character of wetlands included therein.

ARTICLE 9

1. This Convention shall remain open for signature indefinitely.

2. Any member of the United Nations or of one of the Specialized Agencies or of the International Atomic Energy Agency or Party to the Statute of the International Court of Justice may become a party to this Convention by:

(a) signature without reservation as to ratification;

(b) signature subject to ratification followed by ratification;

(c) accession.

3. Ratification or accession shall be effected by the deposit of an instrument of ratification or accession with the Director-General of the United Nations Educational, Scientific and Cultural Organization, (hereinafter referred to as "the Depository").

ARTICLE 10

1. This Convention shall enter into force four months after seven States have become Parties to this Convention in accordance with paragraph 2 of Article 9.

2. Thereafter this Convention shall enter into force for each Contracting Party four months after the day of its signature without reservation as to ratification, or its deposit of an instrument of ratification or accession.

ARTICLE 11

1. This Convention shall continue in force for an indefinite period.

2. Any Contracting Party may denounce this Convention after a period of five years from the date on which it entered into force for that Party by giving written notice thereof to the Depository. Denunciation shall take effect four months after the day on which notice thereof is received by the Depository.

ARTICLE 12

1. The Depository shall inform all States that have signed and acceded to this Convention as soon as possible of:

(a) signatures to the Convention;

(b) deposits of instruments of ratification of this Convention;

(c) deposits of instruments of accession to this Convention;

(d) the date of entry into force of this convention;

(e) notifications of denunciation of this Convention.

2. When this Convention has entered into force, the Depository shall have it registered with the Secretariat of the United Nations in accordance with Article 102 of the Charter.

IN WITNESS WHEREOF, the undersigned, being duly authorized to that effect, have signed this Convention.

DONE at Ramsar this 2nd day of February 1971, in a single original in the English, French, German and Russian languages, in any case of divergency the English text prevailing, which shall be deposited with the Depository which shall send true copies thereof to all Contracting Parties.

Protocol to Amend the Convention on Wetlands of International Importance Especially as Waterfowl Habitat, Paris, 1982

Done at Paris 3 December 1982

Entered into force 1 October 1986

Primary source citation: TIAS 11084

PROTOCOL TO AMEND THE CONVENTION ON WETLANDS OF INTERNATIONAL IMPORTANCE ESPECIALLY AS WATERFOWL HABITAT

The Contracting Parties,

CONSIDERING that for the effectiveness of the Convention on Wetlands of International Importance especially as Waterfowl Habitat, done at Ramsar on 2nd February 1971 (hereinafter referred to as "the Convention"), it is indispensable to increase the number of Contracting Parties;

AWARE that the addition of authentic language versions would facilitate wider participation in the Convention;

CONSIDERING furthermore that the text of the Convention does not provide for an amendment procedure, which makes it difficult to amend the text as may be considered necessary;

HAVE AGREED as follows:

ARTICLE 1

The following Article shall be added between Article 10 and Article 11 of the Convention:

"ARTICLE 10 BIS

1. This Convention may be amended at a meeting of the Contracting Parties convened for that purpose in accordance with this Article.

2. Proposals for amendment may be made by any Contracting Party.

3. The text of any proposed amendment and the reasons for it shall be communicated to the organization or government performing the continuing bureau duties under the Convention (hereinafter referred to as "the

Bureau") and shall promptly be communicated by the Bureau to all Contracting Parties. Any comments on the text by the Contracting Parties shall be communicated to the Bureau within three months of the date on which the amendments were communicated to the Contracting Parties by the Bureau. The Bureau shall, immediately after the last day for submission of comments, communicate to the Contracting Parties all comments submitted by that day.

4. A meeting of Contracting Parties to consider an amendment communicated in accordance with paragraph 3 shall be convened by the Bureau upon the written request of one third of the Contracting Parties. The Bureau shall consult the Parties concerning the time and venue of the meeting.

5. Amendments shall be adopted by a two-thirds majority of the Contracting Parties present and voting.

6. An amendment adopted shall enter into force for the Contracting Parties which have accepted it on the first day of the fourth month following the date on which two thirds of the Contracting Parties have deposited an instrument of acceptance with the Depositary. For each Contracting Party which deposits an instrument of acceptance after the date on which two thirds of the Contracting Parties have deposited an instrument of acceptance, the amendment shall enter into force on the first day of the fourth month following the date of the deposit of its instrument of acceptance."

ARTICLE 2

In the testimonium following Article 12 of the Convention, the words "in any case of divergency the English text prevailing" shall be deleted and replaced by the words "all texts being equally authentic".

ARTICLE 3

The revised text of the original French version of the Convention is reproduced in the Annex to this Protocol.

ARTICLE 4

This Protocol shall be open for signature at Unesco headquarters in Paris from 3 December 1982.

ARTICLE 5

1. Any State referred to in Article 9, paragraph 2, of the Convention may become a Contracting Party to this Protocol by:

   a) signature without reservation as to ratification, acceptance or approval;

   b) signature subject to ratification, acceptance or approval, followed by ratification, acceptance or approval;

   c) accession.

2. Ratification, acceptance, approval or accession shall be effected by the deposit of an instrument of ratification, acceptance, approval or accession with the Director-General of the United Nations Educational, Scientific and Cultural Organization (hereinafter referred to as "the Depositary").

3. Any State which becomes a Contracting Party to the Convention after the entry into force of this Protocol shall, failing an expression of a different intention at the time of signature or of the deposit of the instrument referred to in Article 9 of the Convention, be considered as a Party to the Convention as amended by this Protocol.

4. Any State which becomes a Contracting Party to this Protocol without being a Contracting Party to the Convention, shall be considered as a Party to the Convention as amended by this Protocol as of the date of entry into force of this Protocol for that State.

ARTICLE 6

1. This Protocol shall enter into force the first day of the fourth month following the date on which two thirds of the States which are Contracting Parties to the Convention on the date on which this Protocol is opened for signature have signed it without reservation as to ratification, acceptance or approval, or have ratified, accepted, approved or acceded to it.

2. With regard to any State which becomes a Contracting Party to this Protocol in the manner described in paragraph 1 and 2 of Article 5 above, after the date of its entry into force, this Protocol shall enter into force on the date of its signature without reservation as to ratification, acceptance, or approval, or of its ratification, acceptance, approval or accession.

3. With regard to any State which becomes a Contracting Party to this Protocol in the manner described in paragraph 1 and 2 of Article 5 above, during the period between the date on which this Protocol is opened for signature and its entry into force, this Protocol shall enter into force on the date determined in paragraph 1 above.

ARTICLE 7

1. The original of this Protocol, in the English and French languages, each version being equally authentic, shall be deposited with the Depositary. The Depositary shall transmit certified copies of each of these versions to all States that have signed this Protocol or deposited instruments of accession to it.

2. The Depositary shall inform all Contracting Parties of the Convention and all States that have signed and acceded to this Protocol as soon as possible of:

   a) signatures to this Protocol;

   b) deposits of instruments of ratification, acceptance, or approval of this Protocol;

   c) deposits of instruments of accession to this Protocol;

   d) the date of entry into force of this Protocol.

3. When this Protocol has entered into force, the Depositary shall have it registered with the Secretariat of the United Nations in accordance with Article 102 of the Charter.

IN WITNESS WHEREOF, the undersigned, being duly authorized to that effect, have signed this Protocol.

Done at Paris on 3 December 1982.

Amendments to the Convention on Wetlands of International Importance Especially as Waterfowl Habitat, Regina, 1987

Done at Regina 3 June 1987

Not in force

Primary source citation: Copy of text provided by the U.S. Department of State

AMENDMENTS OF THE CONVENTION ADOPTED BY THE EXTRAORDINARY CONFERENCE

Article 6

1. The present text of paragraph 1 shall be replaced by the following wording: "There shall be established a Conference of the Contracting Parties to review and promote the implementation of this Convention. The Bureau referred to in Article 8, paragraph 1, shall convene ordinary meetings of the Conference of the Contracting Parties at intervals of not more than three years, unless the Conference decides otherwise, and extraordinary meetings at the written request of at least one third of the Contracting Parties. Each ordinary meeting of the Conference of the Contracting Parties shall determine the time and venue of the next ordinary meeting."

2. The introductory phrase of paragraph 2 shall read as follows: "The Conference of the Contracting Parties shall be competent:"

3. An additional item shall be included at the end of paragraph 2, as follows: "(f) to adopt other recommendations, or resolutions, to promote the functioning of this Convention."

4. A new paragraph 4 is added which would read as follows: "The Conference of the Contracting Parties shall adopt rules of procedure for each of its meetings."

5. New paragraphs 5 and 6 are added, which would read as follows:
   Paragraph 5: "The Conference of the Contracting Parties shall establish and keep under review the financial regulations of this Convention. At each of its ordinary meetings, it shall adopt the budget for the next financial period by a two-third majority of Contracting Parties present and voting.

   Paragraph 6: "Each Contracting Party shall contribute to the budget according to a scale of contributions adopted by unanimity of the Contracting Parties present and voting at a meeting of the ordinary Conference of the Contracting Parties."

Article 7

Paragraph 2 is replaced by the following wording:

> "Each of the Contracting Parties represented at a Conference shall have one vote, recommendations, resolutions and decisions being adopted by a simple majority of the Contracting Parties present and voting, unless otherwise provided for in this Convention."

Convention for the Protection of the World Cultural and Natural Heritage, Paris, 1972

Done at Paris 23 November 1972

Entered into force 17 December 1975

Depositary: United Nations Educational, Scientific and Cultural Organization

Primary source citation: 27 UST 37, TIAS 8226

CONVENTION FOR THE PROTECTION OF THE WORLD CULTURAL AND NATURAL HERITAGE

The General Conference of the United Nations Educational, Scientific and Cultural Organization meeting in Paris from 17 October to 21 November 1972, at its seventeenth session,

Noting that the cultural heritage and the natural heritage are increasingly threatened with destruction not only by the traditional causes of decay, but also by changing social and economic conditions which aggravate the situation with even more formidable phenomena of damage or destruction,

Considering that deterioration or disappearance of any item of the cultural or natural heritage constitutes a harmful impoverishment of the heritage of all the nations of the world,

Considering that protection of this heritage at the national level often remains incomplete because of the scale of the resources which it requires and of the insufficient economic, scientific and technical resources of the country where the property to be protected is situated,

Recalling that the Constitution of the Organization provides that it will maintain, increase and diffuse knowledge, by assuring the conservation and protection of the world's heritage, and recommending to the nations concerned the necessary international conventions,

Considering that the existing international conventions, recommendations and resolutions concerning cultural and natural property demonstrate the importance, for all the peoples of the world, of safeguarding this unique and irreplaceable property, to whatever people it may belong,

Considering that parts of the cultural or natural heritage are of outstanding interest and therefore need to be preserved as part of the world heritage of mankind as a whole,

Considering that, in view of the magnitude and gravity of the new dangers threatening them, it is incumbent on the international community as a whole to participate in the protection of the cultural and natural heritage of outstanding universal value, by the granting of collective assistance which, although not taking the place of action by the State concerned, will serve as an effective complement thereto,

Considering that it is essential for this purpose to adopt new provisions in the form of a convention establishing an effective system of collective protection of the cultural and natural heritage of outstanding universal value, organized on a permanent basis and in accordance with modern scientific methods,

Having decided, at its sixteenth session, that this question should be made the subject of an international convention,

Adopts this sixteenth day of November 1972 this Convention.

I. DEFINITIONS OF THE CULTURAL AND THE NATURAL HERITAGE

Article 1

For the purposes of this Convention, the following shall be considered as "cultural heritage":

monuments: architectural works, works of monumental sculpture and painting, elements or structures of an archaeological nature, inscriptions, cave dwellings and combinations of features, which are of outstanding universal value from the point of view of history, art or science;

groups of buildings: groups of separate or connected buildings which, because of their architecture, their homogeneity or their place in the landscape, are of outstanding universal value from the point of view of history, art or science;

sites: works of man or the combined works of nature and of man, and areas including archaeological sites which are of outstanding universal value from the historical, aesthetic, ethnological or anthropological points of view.

Article 2

For the purposes of this Convention, the following shall be considered as "natural heritage";

natural features consisting of physical and biological formations or groups of such formations, which are of outstanding universal value from the aesthetic or scientific point of view;

geological and physiographical formations and precisely delineated areas which constitute the habitat of threatened species of animals and plants of outstanding universal value from the point of view of science or conservation;

natural sites or precisely delineated natural areas of outstanding universal value from the point of view of science, conservation or natural beauty.

Article 3

It is for each State Party to this Convention to identify and delineate the different properties situated on its territory mentioned in Articles 1 and 2 above.

II. NATIONAL PROTECTION AND INTERNATIONAL PROTECTION OF THE CULTURAL AND NATURAL HERITAGE

Article 4

Each State Party to this Convention recognizes that the duty of ensuring the identification, protection, conservation, presentation and transmission to future generations of the cultural and natural heritage referred to in Articles 1 and 2 and situated on its territory, belongs primarily to that State. It will do all it can to this end, to the utmost of its own resources and, where appropriate, with any international assistance and co-operation, in particular, financial, artistic, scientific and technical, which it may be able to obtain.

Article 5

To ensure that effective and active measures are taken for the protection, conservation and presentation of the cultural and natural heritage situated on its territory, each State Party to this Convention shall endeavour, in so far as possible, and as appropriate for each country:

(a) to adopt a general policy which aims to give the cultural and natural heritage a function in the life of the community and to integrate the protection of that heritage into comprehensive planning programmes;

(b) to set up within its territories, where such services do not exist, one or more services for the protection, conservation and presentation of the cultural and natural heritage with an appropriate staff and possessing the means to discharge their functions;

(c) to develop scientific and technical studies and research and to work out such operating methods as will make the State capable of counteracting the dangers that threaten its cultural or natural heritage;

(d) to take the appropriate legal, scientific, technical, administrative and financial measures necessary for the identification, protection, conservation, presentation and rehabilitation of this heritage; and

(e) to foster the establishment or development of national or regional centres for training in the protection, conservation and presentation of the cultural and natural heritage and to encourage scientific research in this field.

Article 6

1. Whilst fully respecting the sovereignty of the States on whose territory the cultural and natural heritage mentioned in Articles 1 and 2 is situated, and without prejudice to property rights provided by national legislation, the States Parties to this Convention recognize that such heritage constitutes a world heritage for whose protection it is the duty of the international community as a whole to co-operate.

2. The States Parties undertake, in accordance with the provisions of this Convention, to give their help in the identification, protection, conservation and preservation of the cultural and natural heritage referred to in paragraphs 2 and 4 of Article 11 if the States on whose territory it is situated so request.

3. Each State Party to this Convention undertakes not to take any deliberate measures which might damage directly or indirectly the cultural and natural heritage referred to in Articles 1 and 2 situated on the territory of other States Parties to this Convention,

Article 7

For the purpose of this Convention, international protection of the world cultural and natural heritage shall be understood to mean the establishment of a system of international co-operation and assistance designed to support States Parties to the Convention in their efforts to conserve and identify that heritage.

III. INTERGOVERNMENTAL COMMITTEE FOR THE PROTECTION OF THE WORLD CULTURAL AND NATURAL HERITAGE

Article 8

1. An Intergovernmental Committee for the Protection of the Cultural and Natural Heritage of Outstanding Universal Value, called "the World Heritage Committee", is hereby established within the United Nations Educational, Scientific and Cultural Organization. It shall be composed of 15 States Parties to the Convention, elected by States Parties to the Convention meeting in general assembly during the ordinary session of the General Conference of the United Nations Educational, Scientific and Cultural Organization. The number of

States members of the Committee shall be increased to 21 as from the date of the ordinary session of the General Conference following the entry into force of this Convention for at least 40 States.

2. Election of members of the Committee shall ensure an equitable representation of the different regions and cultures of the world.

3. A representative of the International Centre for the Study of the Preservation and Restoration of Cultural Property (Rome Centre), a representative of the International Council of Monuments and Sites (ICOMOS) and a representative of the International Union for Conservation of Nature and Natural Resources (IUCN), to whom may be added, at the request of States Parties to the Convention meeting in general assembly during the ordinary sessions of the General Conference of the United Nations Educational, Scientific and Cultural Organization, representatives of other intergovernmental or non-governmental organizations, with similar objectives, may attend the meetings of the Committee in an advisory capacity.

Article 9

1. The term of office of States members of the World Heritage Committee shall extend from the end of the ordinary session of the General Conference during which they are elected until the end of its third subsequent ordinary session.

2. The term of office of one-third of the members designated at the time of the first election shall, however, cease at the end of the first ordinary session of the General Conference following that at which they were elected; and the term of office of a further third of the members designated at the same time shall cease at the end of the second ordinary session of the General Conference following that at which they were elected. The names of these members shall be chosen by lot by the President of the General Conference of the United Nations Educational, Scientific and Cultural Organization after the first election.

3. States members of the Committee shall choose as their representatives persons qualified in the field of the cultural or natural heritage.

Article 10

1. The World Heritage Committee shall adopt its Rules of Procedure.

2. The Committee may at any time invite public or private organizations or individuals to participate in its meetings for consultation on particular problems.

3. The Committee may create such consultative bodies as it deems necessary for the performance of its functions.

Article 11

1. Every State Party to this Convention shall, in so far as possible, submit to the World Heritage Committee an inventory of property forming part of the cultural and natural heritage, situated in its territory and suitable for inclusion in the list provided for in paragraph 2 of this Article. This inventory, which shall not be considered exhaustive, shall include documentation about the location of the property in question and its significance.

2. On the basis of the inventories submitted by States in accordance with paragraph 1, the Committee shall establish, keep up to date and publish, under the title of "World Heritage List", a list of properties forming part of the cultural heritage and natural heritage, as defined in Articles 1 and 2 of this Convention, which it considers as having outstanding universal value in terms of such criteria as it shall have established. An updated list shall be distributed at least every two years.

3. The inclusion of a property in the World Heritage List requires the consent of the State concerned. The inclusion of a property situated in a territory, sovereignty or jurisdiction over which is claimed by more than one State shall in no way prejudice the rights of the parties to the dispute.

4. The Committee shall establish, keep up to date and publish, whenever circumstances shall so require, under the title of "List of World Heritage in Danger", a list of the property appearing in the World Heritage List for the conservation of which major operations are necessary and for which assistance has been requested under this Convention. This list shall contain an estimate of the cost of such operations. The list may include only such property forming part of the cultural and natural heritage as is threatened by serious and specific dangers, such as the threat of disappearance caused by accelerated deterioration, large-scale public or private projects or rapid urban or tourist development projects; destruction caused by changes in the use or ownership of the land; major alterations due to unknown causes; abandonment for any reason whatsoever; the outbreak or the threat of an armed conflict; calamities and cataclysms; serious fires, earthquakes, landslides, volcanic eruptions; changes in water level, floods, and tidal waves. The Committee may at any time, in case of urgent need, make a new entry in the List of World Heritage in Danger and publicize such entry immediately.

5. The Committee shall define the criteria on the basis of which a property belonging to the cultural or natural heritage may be included in either of the lists mentioned in paragraphs 2 and 4 of this article.

6. Before refusing a request for inclusion in one of the two lists mentioned in paragraphs 2 and 4 of this article, the Committee shall consult the State Party in whose territory the cultural or natural property in question is situated.

7. The Committee shall, with the agreement of the States concerned, co-ordinate and encourage the studies and research needed for the drawing up of the lists referred to in paragraphs 2 and 4 of this article.

Article 12

The fact that a property belonging to the cultural or natural heritage has not been included in either of the two lists mentioned in paragraphs 2 and 4 of Article 11 shall in no way be construed to mean that it does not have an outstanding universal value for purposes other than those resulting from inclusion in these lists.

Article 13

1. The World Heritage Committee shall receive and study requests for international assistance formulated by States Parties to this Convention with respect to property forming part of the cultural or natural heritage, situated in their territories, and included or potentially suitable for inclusion in the lists referred to in paragraphs 2 and 4 of Article 11. The purpose of such requests may be to secure the protection, conservation, presentation or rehabilitation of such property.

2. Requests for international assistance under paragraph 1 of this article may also be concerned with identification of cultural or natural property defined in Articles 1 and 2, when preliminary investigations have shown that further inquiries would be justified.

3. The Committee shall decide on the action to be taken with regard to these requests, determine where appropriate,the nature and extent of its assistance, and authorize the conclusion, on its behalf, of the necessary arrangements with the government concerned.

4. The Committee shall determine an order of priorities for its operations. It shall in so doing bear in mind the respective importance for the world cultural and natural heritage of the property requiring protection, the need to give international assistance to the property most representative of a natural environment or of the genius and the history of the peoples of the world, the urgency of the work to be done, the resources available to the States on whose territory the threatened property is situated and in particular the extent to which they are able to safeguard such property by their own means.

5. The Committee shall draw up, keep up to date and publicize a list of property for which international assistance has been granted.

6. The Committee shall decide on the use of the resources of the Fund established under Article 15 of this Convention. It shall seek ways of increasing these resources and shall take all useful steps to this end.

7. The Committee shall co-operate with international and national governmental and nongovernmental organizations having objectives similar to those of this Convention. For the implementation of its programmes and projects, the Committee may call on such organizations, particularly the International Centre for the Study of the Preservation and Restoration of Cultural Property (the Rome Centre), the International Council of Monuments and Sites (ICOMOS) and the International Union for Conservation of Nature and Natural Resources (IUCN), as well as on public and private bodies and individuals.

8. Decisions of the Committee shall be taken by a majority of two-thirds of its members present and voting. A majority of the members of the Committee shall constitute a quorum.

Article 14

1. The World Heritage Committee shall be assisted by a Secretariat appointed by the Director-General of the United Nations Educational, Scientific and Cultural Organization.

2. The Director-General of the United Nations Educational, Scientific and Cultural Organization, utilizing to the fullest extent possible the services of the International Centre for the Study of the Preservation and the Restoration of Cultural Property (the Rome Centre), the International Council of Monuments and Sites (ICOMOS) and the International Union for Conservation of Nature and Natural Resources (IUCN) in their respective areas of competence and capability, shall prepare the Committee's documentation and the agenda of its meetings and shall have the responsibility for the implementation of its decisions.

IV. FUND FOR THE PROTECTION OF THE WORLD CULTURAL AND NATURAL HERITAGE

Article 15

1. A Fund for the Protection of the World Cultural and Natural Heritage of Outstanding Universal Value, called "the World Heritage Fund", is hereby established.

2. The Fund shall constitute a trust fund, in conformity with the provisions of the Financial Regulations of the United Nations Educational, Scientific and Cultural Organization.

3. The resources of the Fund shall consist of:

   (a) compulsory and voluntary contributions made by the States Parties to this Convention,

   (b) contributions, gifts or bequests which may be made by:

      (i) other States;

      (ii) the United Nations Educational, Scientific and Cultural Organization, other organizations of the United Nations system, particularly the United Nations Development Programme or other intergovernmental organizations;

      (iii) public or private bodies or individuals;

   (c) any interest due on the resources of the Fund;

   (d) funds raised by collections and receipts from events organized for the benefit of the Fund; and

   (e) all other resources authorized by the Fund's regulations, as drawn up by the World Heritage Committee.

4. Contributions to the Fund and other forms of assistance made available to the Committee may be used only for such purposes as the Committee shall define. The Committee may accept contributions to be used only for a certain programme or project, provided that the Committee shall have decided on the implementation of such programme or project. No political conditions may be attached to contributions made to the Fund.

Article 16

1. Without prejudice to any supplementary voluntary contribution, the States Parties to this Convention undertake to pay regularly, every two years, to the World Heritage Fund, contributions, the amount of which, in the form of a uniform percentage applicable to all States, shall be determined by the General Assembly of States Parties to the Convention, meeting during the sessions of the General Conference of the United Nations Educational, Scientific and Cultural Organization. This decision of the General Assembly requires the majority of the States Parties present and voting, which have not made the declaration referred to in paragraph 2 of this Article. In no case shall the compulsory contribution of States Parties to the Convention exceed 1% of the contribution to the Regular Budget of the United Nations Educational, Scientific and Cultural Organization.

2. However, each State referred to in Article 31 or in Article 32 of this Convention may declare, at the time of the deposit of its instruments of ratification, acceptance or accession, that it shall not be bound by the provisions of paragraph 1 of this Article.

3. A State Party to the Convention which has made the declaration referred to in paragraph 2 of this Article may at any time withdraw the said declaration by notifying the Director-General of the United Nations Educational, Scientific and Cultural Organization. However, the withdrawal of the declaration shall not take effect in regard to the compulsory contribution due by the State until the date of the subsequent General Assembly of States Parties to the Convention.

4. In order that the Committee may be able to plan its operations effectively, the contributions of States Parties to this Convention which have made the declaration referred to in paragraph 2 of this Article, shall be paid on a regular basis, at least every two years, and should not be less than the contributions which they should have paid if they had been bound by the provisions of paragraph 1 of this Article.

5. Any State Party to the Convention which is in arrears with the payment of its compulsory or voluntary contribution for the current year and the calendar year immediately preceding it shall not be eligible as a Member of the World Heritage Committee, although this provision shall not apply to the first election.

The terms of office of any such State which is already a member of the Committee shall terminate at the time of the elections provided for in Article 8, paragraph 1 of this Convention.

Article 17

The States Parties to this Convention shall consider or encourage the establishment of national, public and private foundations or associations whose purpose is to invite donations for the protection of the cultural and natural heritage as defined in Articles 1 and 2 of this Convention.

Article 18

The States Parties to this Convention shall give their assistance to international fund-raising campaigns organized for the World Heritage Fund under the auspices of the United Nations Educational, Scientific and Cultural Organization. They shall facilitate collections made by the bodies mentioned in paragraph 3 of Article 15 for this purpose.

V. CONDITIONS AND ARRANGEMENTS FOR INTERNATIONAL ASSISTANCE

Article 19

Any State Party to this Convention may request international assistance for property forming part of the cultural or natural heritage of outstanding universal value situated within its territory. It shall submit with its request such information and documentation provided for in Article 21 as it has in its possession and as will enable the Committee to come to a decision.

Article 20

Subject to the provisions of paragraph 2 of Article 13, sub-paragraph (c) of Article 22 and Article 23, international assistance provided for by this Convention may be granted only to property forming part of the cultural and natural heritage which the World Heritage Committee has decided, or may decide, to enter in one of the lists mentioned in paragraphs 2 and 4 of Article 11.

Article 21

1. The World Heritage Committee shall define the procedure by which requests to it for international assistance shall be considered and shall specify the content of the request, which should define the operation contemplated, the work that is necessary, the expected cost thereof, the degree of urgency and the reasons why the resources of the State requesting assistance do not allow it to meet all the expenses. Such requests must be supported by experts' reports whenever possible.

2. Requests based upon disasters or natural calamities should, by reasons of the urgent work which they may involve, be given immediate, priority consideration by the Committee, which should have a reserve fund at its disposal against such contingencies.

3. Before coming to a decision, the Committee shall carry out such studies and consultations as it deems necessary.

Article 22

Assistance granted by the World Heritage Committee may take the following forms:

(a) studies concerning the artistic, scientific and technical problems raised by the protection, conservation, presentation and rehabilitation of the cultural and natural heritage, as defined in paragraphs 2 and 4 of Article 11 of this Convention;

(b) provision of experts, technicians and skilled labour to ensure that the approved work is correctly carried out;

(c) training of staff and specialists at all levels in the field of identification, protection, conservation, presentation and rehabilitation of the cultural and natural heritage;

(d) supply of equipment which the State concerned does not possess or is not in a position to acquire;

(e) low-interest or interest-free loans which might be repayable on a long-term basis;

(f) the granting, in exceptional cases and for special reasons, of non-repayable subsidies.

Article 23

The World Heritage Committee may also provide international assistance to national or regional centres for the training of staff and specialists at all levels in the field of identification, protection, conservation, presentation and rehabilitation of the cultural and natural heritage.

Article 24

International assistance on a large scale shall be preceded by detailed scientific, economic and technical studies. These studies shall draw upon the most advanced techniques for the protection, conservation, presentation and rehabilitation of the natural and cultural heritage and shall be consistent with the objectives of this Convention. The studies shall also seek means of making rational use of the resources available in the State concerned.

Article 25

As a general rule, only part of the cost of work necessary shall be borne by the international community. The contribution of the State benefiting from international assistance shall constitute a substantial share of the resources devoted to each programme or project, unless its resources do not permit this.

Article 26

The World Heritage Committee and the recipient State shall define in the agreement they conclude the conditions in which a programme or project for which international assistance under the terms of this Convention is provided, shall be carried out. It shall be the responsibility of the State receiving such international assistance to continue to protect, conserve and present the property so safeguarded, in observance of the conditions laid down by the agreement.

VI. EDUCATIONAL PROGRAMMES

Article 27

1. The States Parties to this Convention shall endeavour by all appropriate means, and in particular by educational and information programmes, to strengthen appreciation and respect by their peoples of the cultural and natural heritage defined in Articles 1 and 2 of the Convention.

2. They shall undertake to keep the public broadly informed of the dangers threatening this heritage and of activities carried on in pursuance of this Convention.

Article 28

States Parties to this Convention which receive international assistance under the Convention shall take appropriate measures to make known the importance of the property for which assistance has been received and the role played by such assistance.

VII. REPORTS

Article 29

1. The States Parties to this Convention shall, in the reports which they submit to the General Conference of the United Nations Educational, Scientific and Cultural Organization on dates and in a manner to be determined by it, give information on the legislative and administrative provisions which they have adopted and other action which they have taken for the application of this Convention, together with details of the experience acquired in this field.

2. These reports shall be brought to the attention of the World Heritage Committee.

3. The Committee shall submit a report on its activities at each of the ordinary sessions of the General Conference of the United Nations Educational, Scientific and Cultural Organization.

VIII. FINAL CLAUSES

Article 30

This Convention is drawn up in Arabic, English, French, Russian and Spanish, the five texts being equally authoritative.

Article 31

1. This Convention shall be subject to ratification or acceptance by States members of the United Nations Educational, Scientific and Cultural Organization in accordance with their respective constitutional procedures.

2. The instruments of ratification or acceptance shall be deposited with the Director-General of the United Nations Educational, Scientific and Cultural Organization.

Article 32

1. This Convention shall be open to accession by all States not members of the United Nations Educational, Scientific and Cultural Organization which are invited by the General Conference of the Organization to accede to it.

2. Accession shall be effected by the deposit of an instrument of accession with the Director-General of the United Nations Educational, Scientific and Cultural Organization.

Article 33

This Convention shall enter into force three months after the date of the deposit of the twentieth instrument of ratification, acceptance or accession, but only with respect to those States which have deposited their respective instruments of ratification, acceptance or accession on or before that date. It shall enter into force with respect to any other State three months after the deposit of its instrument of ratification, acceptance or accession.

Article 34

The following provisions shall apply to those States Parties to this Convention which have a federal or non-unitary constitutional system:

(a) with regard to the provisions of this Convention, the implementation of which comes under the legal jurisdiction of the federal or central legislative power, the obligations of the federal or central government shall be the same as for those States Parties which are not federal States;

(b) with regard to the provisions of this Convention, the implementation of which comes under the legal jurisdiction of individual constituent States, countries, provinces or cantons that are not obliged by the constitutional system of the federation to take legislative measures, the federal government shall inform the competent authorities of such States, countries, provinces or cantons of the said provisions, with its recommendation for their adoption.

Article 35

1. Each State Party to this Convention may denounce the Convention.

2. The denunciation shall be notified by an instrument in writing, deposited with the Director-General of the United Nations Educational, Scientific and Cultural Organization.

3. The denunciation shall take effect twelve months after the receipt of the instrument of denunciation. It shall not affect the financial obligations of the denouncing State until the date on which the withdrawal takes effect.

Article 36

The Director-General of the United Nation Educational, Scientific and Cultural Organization shall inform the States members of the Organization, the States not members of the Organization which are referred to in Article 32, as well as the United Nations, of the deposit of all the instruments of ratification, acceptance, or accession provided for in Articles 31 and 32, and of the denunciations provided for in Article 35.

Article 37

1. This Convention may be revised by the General Conference of the United Nations Educational, Scientific and Cultural Organization. Any such revision shall, however, bind only the States which shall become Parties to the revising convention.

2. If the General Conference should adopt a new convention revising this Convention in whole or in part, then, unless the new convention otherwise provides, this Convention shall cease to be open to ratification, acceptance or accession, as from the date on which the new revising convention enters into force.

Article 38

In conformity with Article 102 of the Charter of the United Nations, this Convention shall be registered with the Secretariat of the United Nations at the request of the Director-General of the United Nations Educational, Scientific and Cultural Organization.

Done in Paris, this twenty-third day of November 1972, in two authentic copies bearing the signature of the President of the seventeenth session of the General Conference and of the Director-General of the United Nations Educational, Scientific and Cultural Organization, which shall be deposited in the archives of the United Nations Educational, Scientific and Cultural Organization, and certified true copies of which shall be delivered to all the States referred to in Articles 31 and 32 as well as to the United Nations.

Convention on International Trade in Endangered Species of Wild Fauna and Flora, Washington, 1973

Done at Washington 3 March 1973

Entered into force 1 July 1975

Depositary: Switzerland

Primary source citation: 27 UST 1087, TIAS 8249; Copies of the texts of Appendices I, II, and III provided by the Secretariat for the Convention on International Trade in Endangered Species of Wild Fauna and Flora.

CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES OF WILD FAUNA AND FLORA

The Contracting States,

RECOGNIZING that wild fauna and flora in their many beautiful and varied forms are an irreplaceable part of the natural systems of the earth which must be protected for this and the generations to come;

CONSCIOUS of the ever-growing value of wild fauna and flora from aesthetic, scientific, cultural, recreational and economic points of view;

RECOGNIZING that peoples and States are and should be the best protectors of their own wild fauna and flora;

RECOGNIZING, in addition, that international cooperation is essential for the protection of certain species of wild fauna and flora against over-exploitation through international trade;

CONVINCED of the urgency of taking appropriate measures to this end;

HAVE AGREED as follows:

ARTICLE I

Definitions

For the purpose of the present Convention, unless the context otherwise requires:

(a) "Species" means any species, subspecies, or geographically separate population thereof;

(b) "Specimen" means:

(i) any animal or plant, whether alive or dead;

(ii) in the case of an animal: for species included in Appendices I and II, any readily recognizable part or derivative thereof; and for species included in Appendix III, any readily recognizable part or derivative thereof specified in Appendix III in relation to the species; and

(iii) in the case of a plant: for species included in Appendix I, any readily recognizable part or derivative thereof; and for species included in Appendices II and III, any readily recognizable part or derivative thereof specified in Appendices II and III in relation to the species;

(c) "Trade" means export, re-export, import and introduction from the sea;

(d) "Re-export" means export of any specimen that has previously been imported;

(e) "Introduction from the sea" means transportation into a State of specimens of any species which were taken in the marine environment not under the jurisdiction of any State;

(f) "Scientific Authority" means a national scientific authority designated in accordance with Article IX;

(g) "Management Authority" means a national management authority designated in accordance with Article IX;

(h) "Party" means a State for which the present Convention has entered into force.

ARTICLE II

Fundamental Principles

1. Appendix I shall include all species threatened with extinction which are or may be affected by trade. Trade in specimens of these species must be subject to particularly strict regulation in order not to endanger further their survival and must only be authorized in exceptional circumstances.

2. Appendix II shall include:

(a) all species which although not necessarily now threatened with extinction may become so unless trade in specimens of such species is subject to strict regulation in order to avoid utilization incompatible with their survival; and

(b) other species which must be subject to regulation in order that trade in specimens of certain species referred to in sub-paragraph (a) of this paragraph may be brought under effective control.

3. Appendix III shall include all species which any Party identifies as being subject to regulation within its jurisdiction for the purpose of preventing or restricting exploitation, and as needing the cooperation of other parties in the control of trade.

4. The Parties shall not allow trade in specimens of species included in Appendices I, II and III except in accordance with the provisions of the present Convention.

ARTICLE III

Regulation of Trade in Specimens of Species included in Appendix I

1. All trade in specimens of species included in Appendix I shall be in accordance with the provisions of this Article.

2. The export of any specimen of a species included in Appendix I shall require the prior grant and presentation of an export permit. An export permit shall only be granted when the following conditions have been met:

(a) a Scientific Authority of the State of export has advised that such export will not be detrimental to the survival of that species;

(b) a Management Authority of the State of export is satisfied that the specimen was not obtained in contravention of the laws of that State for the protection of fauna and flora;

(c) a Management Authority of the State of export is satisfied that any living specimen will be so prepared and shipped as to minimize the risk of injury, damage to health or cruel treatment; and

(d) a Management Authority of the State of export is satisfied that an import permit has been granted for the specimen.

3. The import of any specimen of a species included in Appendix I shall require the prior grant and presentation of an import permit and either an export permit or a re-export certificate. An import permit shall only be granted when the following conditions have been met:

(a) a Scientific Authority of the State of import has advised that the import will be for purposes which are not detrimental to the survival of the species involved;

(b) a Scientific Authority of the State of import is satisfied that the proposed recipient of a living specimen is suitably equipped to house and care for it; and

(c) a Management Authority of the State of import is satisfied that the specimen is not to be used for primarily commercial purposes.

4. The re-export of any specimen of a species included in Appendix I shall require the prior grant and presentation of a re-export certificate. A re-export certificate shall only be granted when the following conditions have been met:

(a) a Management Authority of the State of re-export is satisfied that the specimen was imported into that State in accordance with the provisions of the present Convention;

(b) a Management Authority of the State of re-export is satisfied that any living specimen will be so prepared and shipped as to minimize the risk of injury, damage to health or cruel treatment; and

(c) a Management Authority of the State of re-export is satisfied that an import permit has been granted for any living specimen.

5. The introduction from the sea of any specimen of a species included in Appendix I shall require the prior grant of a certificate from a Management Authority of the State of introduction. A certificate shall only be granted when the following conditions have been met:

(a) a Scientific Authority of the State of introduction advises that the introduction will not be detrimental to the survival of the species involved;

(b) a Management Authority of the State of introduction is satisfied that the proposed recipient of a living specimen is suitably equipped to house and care for it; and

(c) a Management Authority of the State of introduction is satisfied that the specimen is not to be used for primarily commercial purposes.

ARTICLE IV

Regulation of Trade in Specimens of Species included in Appendix II

1. All trade in specimens of species included in Appendix II shall be in accordance with the provisions of this Article.

2. The export of any specimen of a species included in Appendix II shall require the prior grant and presentation of an export permit. An export permit shall only be granted when the following conditions have been met:

(a) a Scientific Authority of the State of export has advised that such export will not be detrimental to the survival of that species;

(b) a Management Authority of the State of export is satisfied that the specimen was not obtained in contravention of the laws of that State for the protection of fauna and flora; and

(c) a Management Authority of the State of export is satisfied that any living specimen will be so prepared and shipped as to minimize the risk of injury, damage to health or cruel treatment.

3. A Scientific Authority in each Party shall monitor both the export permits granted by that State for specimens of species included in Appendix II and the actual exports of such specimens. Whenever a Scientific Authority determines that the export of specimens of any such species should be limited in order to maintain that species throughout its range at a level consistent with its role in the ecosystems in which it occurs and well above the level at which that species might become eligible for inclusion in Appendix I, the Scientific Authority shall advise the appropriate Management Authority of suitable measures to be taken to limit the grant of export permits for specimens of that species.

4. The import of any specimen of a species included in Appendix II shall require the prior presentation of either an export permit or a re-export certificate.

5. The re-export of any specimen of a species included in Appendix II shall require the prior grant and presentation of a re-export certificate. A re-export certificate shall only be granted when the following conditions have been met:

(a) a Management Authority of the State of re-export is satisfied that the specimen was imported into that State in accordance with the provisions of the present Convention; and

(b) a Management Authority of the State of re-export is satisfied that any living specimen will be so prepared and shipped as to minimize the risk of injury, damage to health or cruel treatment.

6. The introduction from the sea of any specimen of a species included in Appendix II shall require the prior grant of a certificate from a Management Authority of the State of introduction. A certificate shall only be granted when the following conditions have been met:

(a) a Scientific Authority of the State of introduction advises that the introduction will not be detrimental to the survival of the species involved; and

(b) a Management Authority of the State of introduction is satisfied that any living specimen will be so handled as to minimize the risk of injury, damage to health or cruel treatment.

7. Certificates referred to in paragraph 6 of this Article may be granted on the advice of a Scientific Authority, in consultation with other national scientific authorities or, when appropriate, international scientific authorities, in respect of periods not exceeding one year for total numbers of specimens to be introduced in such periods.

ARTICLE V

Regulation of Trade in Specimens of Species included in Appendix III

1. All trade in specimens of species included in Appendix III shall be in accordance with the provisions of this Article.

2. The export of any specimen of a species included in Appendix III from any State which has included that species in Appendix III shall require the prior grant and presentation of an export permit. An export permit shall only be granted when the following conditions have been met:

(a) a Management Authority of the State of export is satisfied that the specimen was not obtained in contravention of the laws of that State for the protection of fauna and flora; and

(b) a Management Authority of the State of export is satisfied that any living specimen will be so prepared and shipped as to minimize the risk of injury, damage to health or cruel treatment.

3. The import of any specimen of a species included in Appendix III shall require, except in circumstances to which paragraph 4 of this Article applies, the prior presentation of a certificate of origin and, where the import is from a State which has included that species in Appendix III, an export permit.

4. In the case of re-export, a certificate granted by the Management Authority of the State of re-export that the specimen was processed in that State or is being re-exported shall be accepted by the State of import as evidence that the provisions of the present Convention have been complied with in respect of the specimen concerned.

ARTICLE VI

Permits and Certificates

1. Permits and certificates granted under the provisions of Articles III, IV, and V shall be in accordance with the provisions of this Article.

2. An export permit shall contain the information specified in the model set forth in Appendix IV, and may only be used for export within a period of six months from the date on which it was granted.

3. Each permit or certificate shall contain the title of the present Convention, the name and any identifying stamp of the Management Authority granting it and a control number assigned by the Management Authority.

4. Any copies of a permit or certificate issued by a Management Authority shall be clearly marked as copies only and no such copy may be used in place of the original, except to the extent endorsed thereon.

5. A separate permit or certificate shall be required for each consignment of specimens.

6. A Management Authority of the State of import of any specimen shall cancel and retain the export permit or re-export certificate and any corresponding import permit presented in respect of the import of that specimen.

7. Where appropriate and feasible a Management Authority may affix a mark upon any specimen to assist in identifying the specimen. For these purposes "mark" means any indelible imprint, lead seal or other suitable means of identifying a specimen, designed in such a way as to render its imitation by unauthorized persons as difficult as possible.

ARTICLE VII

Exemptions and Other Special Provisions Relating to Trade

1. The provisions of Articles III, IV and V shall not apply to the transit or trans-shipment of specimens through or in the territory of a Party while the specimens remain in Customs control.

2. Where a Management Authority of the State of export or re-export is satisfied that a specimen was acquired before the provisions of the present Convention applied to that specimen, the provisions of Articles III, IV and V shall not apply to that specimen where the Management Authority issues a certificate to that effect.

3. The provisions of Articles III, IV and V shall not apply to specimens that are personal or household effects. This exemption shall not apply where:

(a) in the case of specimens of a species included in Appendix I, they were acquired by the owner outside his State of usual residence, and are being imported into that State; or

(b) in the case of specimens of species included in Appendix II:

(i) they were acquired by the owner outside his State of usual residence and in a State where removal from the wild occurred;

(ii) they are being imported into the owner's State of usual residence; and

(iii) the State where removal from the wild occurred requires the prior grant of export permits before any export of such specimens;

unless a Management Authority is satisfied that the specimens were acquired before the provisions of the present Convention applied to such specimens.

4. Specimens of an animal species included in Appendix I bred in captivity for commercial purposes, or of a plant species included in Appendix I artificially propagated for commercial purposes, shall be deemed to be specimens of species included in Appendix II.

5. Where a Management Authority of the State of export is satisfied that any specimen of an animal species was bred in captivity or any specimen of a plant species was artificially propagated, or is a part of such an animal or plant or was derived therefrom, a certificate by that Management Authority to that effect shall be accepted in lieu of any of the permits or certificates required under the provisions of Articles III, IV or V.

6. The provisions of Articles III, IV and V shall not apply to the noncommercial loan, donation or exchange between scientists or scientific institutions registered by a Management Authority of their State, of herbarium specimens, other preserved, dried or embedded museum specimens, and live plant material which carry a label issued or approved by a Management Authority.

7. A Management Authority of any State may waive the requirements of Articles III, IV and V and allow the movement without permits or certificates of specimens which form part of a travelling zoo, circus, menagerie, plant exhibition or other travelling exhibition provided that:

(a) the exporter or importer registers full details of such specimens with that Management Authority;

(b) the specimens are in either of the categories specified in paragraphs 2 or 5 of this Article; and

(c) the Management Authority is satisfied that any living specimen will be so transported and cared for as to minimize the risk of injury, damage to health or cruel treatment.

ARTICLE VIII

Measures to be Taken by the Parties

1. The Parties shall take appropriate measures to enforce the provisions of the present Convention and to prohibit trade in specimens in violation thereof. These shall include measures:

(a) to penalize trade in, or possession of, such specimens, or both; and

(b) to provide for the confiscation or return to the State of export of such specimens.

2. In addition to the measures taken under paragraph 1 of this Article, a Party may, when it deems it necessary, provide for any method of internal reimbursement for expenses incurred as a result of the confiscation of a specimen traded in violation of the measures taken in the application of the provisions of the present Convention.

3. As far as possible, the Parties shall ensure that specimens shall pass through any formalities required for trade with a minimum of delay. To facilitate such passage, a Party may designate ports of exit and ports of entry at which specimens must be presented for clearance. The Parties shall ensure further that all living specimens, during any period of transit, holding or shipment, are properly cared for so as to minimize the risk of injury, damage to health or cruel treatment.

4. Where a living specimen is confiscated as a result of measures referred to in paragraph 1 of this Article:

(a) the specimen shall be entrusted to a Management Authority of the State of confiscation;

(b) the Management Authority shall, after consultation with the State of export, return the specimen to that State at the expense of that State, or to a rescue centre or such other place as the Management Authority deems appropriate and consistent with the purposes of the present Convention; and

(c) the Management Authority may obtain the advice of a Scientific Authority, or may, whenever it considers it desirable, consult the Secretariat in order to facilitate the decision under subparagraph (b) of this paragraph, including the choice of a rescue centre or other place.

5. A rescue centre as referred to in paragraph 4 of this Article means an institution designated by a Management Authority to look after the welfare of living specimens, particularly those that have been confiscated.

6. Each Party shall maintain records of trade in specimens of species included in Appendices I, II and III which shall cover:

(a) the names and addresses of exporters and importers; and

(b) the number and type of permits and certificates granted; the States with which such trade occurred; the numbers or quantities and types of specimens, names of species as included in Appendices I, II and III and, where applicable, the size and sex of the specimens in question.

7. Each Party shall prepare periodic reports on its implementation of the present Convention and shall transmit to the Secretariat:

(a) an annual report containing a summary of the information specified in sub-paragraph (b) of paragraph 6 of this Article; and

(b) a biennial report on legislative, regulatory and administrative measures taken to enforce the provisions of the present Convention.

8. The information referred to in paragraph 7 of this Article shall be available to the public where this is not inconsistent with the law of the Party concerned.

ARTICLE IX

Management and Scientific Authorities

1. Each Party shall designate for the purposes of the present Convention:

(a) one or more Management Authorities competent to grant permits or certificates on behalf of that Party; and

(b) one or more Scientific Authorities.

2. A State depositing an instrument of ratification, acceptance, approval or accession shall at that time inform the Depositary Government of the name and address of the Management Authority authorized to communicate with other Parties and with the Secretariat.

3. Any changes in the designations or authorizations under the provisions of this Article shall be communicated by the Party concerned to the Secretariat for transmission to all other Parties.

4. Any Management Authority referred to in paragraph 2 of this Article shall if so requested by the Secretariat or the Management Authority of another Party, communicate to it impression of stamps, seals or other devices used to authenticate permits or certificates.

ARTICLE X

Trade with States not Party to the Convention

Where export or re-export is to, or import is from, a State not a party to the present Convention, comparable documentation issued by the competent authorities in that State which substantially conforms with the requirements of the present Convention for permits and certificates may be accepted in lieu thereof by any Party.

ARTICLE XI

Conference of the Parties

1. The Secretariat shall call a meeting of the Conference of the Parties not later than two years after the entry into force of the present Convention.

2. Thereafter the Secretariat shall convene regular meetings at least once every two years, unless the Conference decides otherwise, and extraordinary meetings at any time on the written request of at least one-third of the Parties.

3. At meetings, whether regular or extraordinary, the Parties shall review the implementation of the present Convention and may:

(a) make such provision as may be necessary to enable the Secretariat to carry out its duties;

(b) consider and adopt amendments to Appendices I and II in accordance with Article XV;

(c) review the progress made towards the restoration and conservation of the species included in Appendices I, II and III;

(d) receive and consider any reports presented by the Secretariat or by any Party; and

(e) where appropriate, make recommendations for improving the effectiveness of the present Convention.

4. At each regular meeting, the Parties may determine the time and venue of the next regular meeting to be held in accordance with the provisions of paragraph 2 of this Article.

5. At any meeting, the Parties may determine and adopt rules of procedure for the meeting.

6. The United Nations, its Specialized Agencies and the International Atomic Energy Agency, as well as any State not a Party to the present Convention, may be represented at meetings of the Conference by observers, who shall have the right to participate but not to vote.

7. Any body or agency technically qualified in protection, conservation or management of wild fauna and flora, in the following categories, which has informed the Secretariat of its desire to be represented at meetings of the Conference by observers, shall be admitted unless at least one-third of the Parties present object:

(a) international agencies or bodies, either governmental or non-governmental, and national governmental agencies and bodies; and

(b) national non-governmental agencies or bodies which have been approved for this purpose by the State in which they are located. Once admitted, these observers shall have the right to participate but not to vote.

ARTICLE XII

The Secretariat

1. Upon entry into force of the present Convention, a Secretariat shall be provided by the Executive Director of the United Nations Environment Programme. To the extent and in the manner he considers appropriate, he may be assisted by suitable inter-governmental or non-governmental international or national agencies and bodies technically qualified in protection, conservation and management of wild fauna and flora.

2. The functions of the Secretariat shall be:

(a) to arrange for and service meetings of the Parties;

(b) to perform the functions entrusted to it under the provisions of Articles XV and XVI of the present Convention;

(c) to undertake scientific and technical studies in accordance with programmes authorized by the Conference of the Parties as will contribute to the implementation of the present Convention, including studies concerning standards for appropriate preparation and shipment of living specimens and the means of identifying specimens;

(d) to study the reports of Parties and to request from Parties such further information with respect thereto as it deems necessary to ensure implementation of the present Convention;

(e) to invite the attention of the Parties to any matter pertaining to the aims of the present Convention;

(f) to publish periodically and distribute to the Parties current editions of Appendices I, II and III together with any information which will facilitate identification of specimens of species included in those Appendices;

(g) to prepare annual reports to the Parties on its work and on the implementation of the present Convention and such other reports as meetings of the Parties may request;

(h) to make recommendations for the implementation of the aims and provisions of the present Convention, including the exchange of information of a scientific or technical nature;

(i) to perform any other function as may be entrusted to it by the Parties.

ARTICLE XIII

International Measures

1. When the Secretariat in the light of information received is satisfied that any species included in Appendices I or II is being affected adversely by trade in specimens of that species or that the provisions of the present Convention are not being effectively implemented, it shall communicate such information to the authorized Management Authority of the Party or Parties concerned.

2. When any Party receives a communication as indicated in paragraph 1 of this Article, it shall, as soon as possible, inform the Secretariat of any relevant facts insofar as its laws permit and, where appropriate, propose remedial action. Where the Party considers that an inquiry is desirable, such inquiry may be carried out by one or more persons expressly authorized by the Party.

3. The information provided by the Party or resulting from any inquiry as specified in paragraph 2 of this Article shall be reviewed by the next Conference of the Parties which may make whatever recoendations it deems appropriate.

ARTICLE XIV

Effect on Domestic Legislation and International Conventions

1. The provisions of the present Convention shall in no way affect the right of Parties to adopt:

(a) stricter domestic measures regarding the conditions for trade, taking possession or transport of specimens of species included in Appendices I, II and III, or the complete prohibition thereof; or

(b) domestic measures restricting or prohibiting trade, taking possession, or transport of species not included in Appendices I, II or III.

2. The provisions of the present Convention shall in no way affect the provisions of any domestic measures or the obligations of Parties deriving from any treaty, convention, or international agreement relating to other aspects of trade, taking, possession, or transport of specimens which is in force or subsequently may enter into force for any Party including any measure pertaining to the Customs, public health, veterinary or plant quarantine fields.

3. The provisions of the present Convention shall in no way affect the provisions of, or the obligations deriving from, any treaty, convention or international agreement concluded or which may be concluded between States creating a union or regional trade agreement establishing or maintaining a common external customs control and removing customs control between the parties thereto insofar as they relate to trade among the States members of that union or agreement.

4. A State party to the present Convention, which is also a party to any other treaty, convention or international agreement which is in force at the time of the coming into force of the present Convention and under the provisions of which protection is afforded to marine species included in Appendix II, shall be relieved of the obligations imposed on it under the provisions of the present Convention with respect to trade in specimens of species included in Appendix II that are taken by ships registered in that State and in accordance with the provisions of such other treaty, convention or international agreement.

5. Notwithstanding the provisions of Articles III, IV and V, any export of a specimen taken in accordance with paragraph 4 of this Article shall only require a certificate from a Management Authority of the State of introduction to the effect that the specimen was taken in accordance with the provisions of the other treaty, convention or international agreement in question.

6. Nothing in the present Convention shall prejudice the codification and development of the law of the sea by the United Nations Conference on the Law of the Sea convened pursuant to Resolution 2750 C (XXV) of the General Assembly of the United Nations nor the present or future claims and legal views of any State concerning the law of the sea and the nature and extent of coastal and flag State jurisdiction.

ARTICLE XV

Amendments to Appendices I and II

1. The following provisions shall apply in relation to amendments to Appendices I and II at meetings of the Conference of the Parties:

(a) Any Party may propose an amendment to Appendix I or II for consideration at the next meeting. The text of the proposed amendment shall be communicated to the Secretariat at least 150 days before the meeting. The Secretariat shall consult the other Parties and interested bodies on the amendment in accordance with the provisions of sub-paragraphs (b) and (c) of paragraph 2 of this Article and shall communicate the response to all Parties not later than 30 days before the meeting.

(b) Amendments shall be adopted by a two-thirds majority of Parties present and voting. For these purposes "Parties present and voting" means Parties present and casting an affirmative or negative vote. Parties abstaining from voting shall not be counted among the two-thirds required for adopting an amendment.

(c) Amendments adopted at a meeting shall enter into force 90 days after that meeting for all Parties except those which make a reservation in accordance with paragraph 3 of this Article.

2. The following provisions shall apply in relation to amendments to Appendices I and II between meetings of the Conference of the Parties:

(a) Any Party may propose an amendment to Appendix I or II for consideration between meetings by the postal procedures set forth in this paragraph.

(b) For marine species, the Secretariat shall, upon receiving the text of the proposed amendment, immediately communicate it to the Parties. It shall also consult inter-governmental bodies having a function in relation to those species especially with a view to obtaining scientific data these bodies may be able to provide and to ensuring coordination with any conservation measures enforced by such bodies. The Secretariat shall communicate the views expressed and data provided by these bodies and its own findings and recommendations to the Parties as soon as possible.

(c) For species other than marine species, the Secretariat shall, upon receiving the text of the proposed amendment, immediately communicate it to the Parties, and, as soon as possible thereafter, its own recommendations.

(d) Any Party may, within 60 days of the date on which the Secretariat communicated its recommendations to the Parties under sub-paragraphs (b) or (c) of this paragraph, transmit to the Secretariat any comments on the proposed amendment together with any relevant scientific data and information.

(e) The Secretariat shall communicate the replies received together with its own recommendations to the Parties as soon as possible.

(f) If no objection to the proposed amendment is received by the Secretariat within 30 days of the date the replies and recommendations were communicated under the provisions of sub-paragraph (e) of this paragraph, the amendment shall enter into force 90 days later for all Parties except those which make a reservation in accordance with paragraph 3 of this Article.

(g) If an objection by any Party is received by the Secretariat, the proposed amendment shall be submitted to a postal vote in accordance with the provisions of sub-paragraphs (h), (i) and (j) of this paragraph.

(h) The Secretariat shall notify the Parties that notification of objection has been received.

(i) Unless the Secretariat receives the votes for, against or in abstention from at least one-half of the Parties within 60 days of the date of notification under sub-paragraph (h) of this paragraph, the proposed amendment shall be referred to the next meeting of the Conference for further consideration.

(j) Provided that votes are received from one-half of the Parties, the amendment shall be adopted by a two-thirds majority of Parties casting an affirmative or negative vote.

(k) The Secretariat shall notify all Parties of the result of the vote.

(l) If the proposed amendment is adopted it shall enter into force 90 days after the date of the notification by the Secretariat of its acceptance for all Parties except those which make a reservation in accordance with paragraph 3 of this Article.

3. During the period of 90 days provided for by sub-paragraph (c) of paragraph 1 or sub-paragraph (1) of paragraph 2 of this Article any Party may by notification in writing to the Depositary Government make a reservation with respect to the amendment. Until such reservation is withdrawn the Party shall be treated as a State not a party to the present Convention with respect to trade in the species concerned.

ARTICLE XVI

Appendix III and Amendments thereto

1. Any party may at any time submit to the Secretariat a list of species which it identifies as being subject to regulation within its jurisdiction for the purpose mentioned in paragraph 3 of Article II. Appendix III shall include the names of the Parties submitting the species for inclusion therein, the scientific names of the species so submitted, and any parts or derivatives of the animals or plants concerned that are specified in relation to the species for the purposes of sub-paragraph (b) of Article I.

2. Each list submitted under the provisions of paragraph 1 of this Article shall be communicated to the Parties by the Secretariat as soon as possible after receiving it. The list shall take effect as part of Appendix III 90 days after the date of such communication. At any tine after the communication of such list, any Party may by notification in writing to the Depositary Government enter a reservation with respect to any species or any parts or derivatives, and until such reservation is withdrawn, the State shall be treated as a State not a Party to the present Convention with respect to trade in the species or part or derivative concerned.

3. A Party which has submitted a species for inclusion in Appendix III may withdraw it at any time by notification to the Secretariat which shall communicate the withdrawal to all Parties. The withdrawal shall take effect 30 days after the date of such communication.

4. Any Party submitting a list under the provisions of paragraph 1 of this Article shall submit to the Secretariat a copy of all domestic laws and regulations applicable to the protection of such species, together with any interpretations which the Party may deem appropriate or the Secretariat may request. The Party shall, for as long as the species in question is included in Appendix III, submit any amendments of such laws and regulations or any new interpretations as they are adopted.

ARTICLE XVII

Amendment of the Convention

1. An extraordinary meeting of the Conference of the Parties shall be convened by the Secretariat on the written request of at least one-third of the Parties to consider and adopt amendments to the present Convention. Such amendments shall be adopted by a two-thirds majority of Parties present and voting. For these purposes "Parties present and voting" means Parties present and casting an affirmative or negative vote. Parties abstaining from voting shall not be counted among the two-thirds required for adopting an amendment.

2. The text of any proposed amendment shall be communicated by the Secretariat to all Parties at least 90 days before the meeting.

3. An amendment shall enter into force for the Parties which have accepted it 60 days after two-thirds of the Parties have deposited an instrument of acceptance of the amendment with the Depositary Government. Thereafter, the amendment shall enter into force for any other Party 60 days after that Party deposits its instrument of acceptance of the amendment.

ARTICLE XVIII

Resolution of Disputes

1. Any dispute which may arise between two or more Parties with respect to the interpretation or application of the provisions of the present Convention shall be subject to negotiation between the Parties involved in the dispute.

2. If the dispute cannot be resolved in accordance with paragraph 1 of this Article, the Parties may, by mutual consent, submit the dispute to arbitration, in particular that of the Permanent Court of Arbitration at The Hague, and the Parties submitting the dispute shall be bound by the arbitral decision.

ARTICLE XIX

Signature

The present convention shall be open for signature at Washington until 30th April 1973 and thereafter at Berne until 31st December 1974.

ARTICLE XX

Ratification, Acceptance, Approval

The present Convention shall be subject to ratification, acceptance or approval. Instruments of ratification, acceptance or approval shall be deposited with the Government of the Swiss Confederation which shall be the Depository Government.

ARTICLE XXI

Accession

The present Convention shall be open indefinitely for accession. Instruments of accession shall be deposited with the Depositary Government.

ARTICLE XXII

Entry into Force

1. The present Convention shall enter into force 90 days after the date of deposit of the tenth instrument of ratification, acceptance, approval or accession, with the Depositary Government.

2. For each State which ratifies, accepts or approves the present Convention or accedes thereto after the deposit of the tenth instrument of ratification, acceptance, approval or accession, the present Convention shall enter into force 90 days after the deposit by such State of its instrument of ratification, acceptance, approval or accession.

ARTICLE XXIII

Reservations

1. The provisions of the present Convention shall not be subject to general reservations. Specific reservations may be entered in accordance with the provisions of this Article and Articles XV and XVI.

2. Any State may, on depositing its instrument of ratification, acceptance, approval or accession, enter a specific reservation with regard to:

(a) any species included in Appendix I, II or III; or

(b) any parts or derivatives specified in relation to a species included in Appendix III.

3. Until a Party withdraws its reservation entered under the provisions of this Article, it shall be treated as a State not a party to the present Convention with respect to trade in the particular species or parts or derivatives specified in such reservation.

ARTICLE XXIV

Denunciation

Any Party may denounce the present Convention by written notification to the Depositary Government at any time. The denunciation shall take effect twelve months after the Depositary Government has received the notification.

ARTICLE XXV

Depositary

1. The original of the present Convention, in the Chinese, English, French, Russian and Spanish languages, each version being equally authentic, shall be deposited with the Depositary Government, which shall transmit certified copies thereof to all States that have signed it or deposited instruments of accession to it.

2. The Depositary Government shall inform all signatory and acceding States and the Secretariat of signatures, deposit of instruments of ratification, acceptance, approval or accession, entry into force of the present Convention, amendments thereto, entry and withdrawal of reservations and notifications of denunciation.

3. As soon as the present Convention enters into force, a certified copy thereof shall be transmitted by the Depositary Government to the Secretariat of the United Nations for registration and publication in accordance with Article 102 of the Charter of the United Nations.

IN WITNESS WHEREOF the undersigned Plenipotentiaries, being duly authorized to that effect, have signed the present Convention.

DONE at Washington this third day of March, One Thousand Nine Hundred and Seventy-three.

APPENDICES I AND II

as adopted by the Conference of the Parties, valid as of 16 April 1993

INTERPRETATION

1. Species included in these appendices are referred to:

   a) by the name of the species; or

   b) as being all of the species included in a higher taxon or designated part thereof.

2. The abbreviation "spp." is used to denote all species of a higher taxon.

3. Other references to taxa higher than species are for the purposes of information or classification only.

4. The abbreviation "p.e." is used to denote species that are possibly extinct.

5. An asterisk (*) placed against the name of a species or higher taxon indicates that one or more geographically separate populations, subspecies or species of that species or taxon are included in Appendix I and are excluded from Appendix II.

6. Two asterisks (**) placed against the name of a species or higher taxon indicate that one or more geographically separate populations, subspecies or species of that species or taxon are included in Appendix II and are excluded from Appendix I.

7. The symbol (-) followed by a number placed against the name of a species or higher taxon denotes that designated geographically separate populations, species, groups of species or families of that species or taxon are excluded from the appendix concerned, as follows:

   -101 Population of West Greenland

   -102 Populations of Bhutan, India, Nepal and Pakistan

   -103 Population of China

   -104 Population of Australia

   -105 Population of the United States of America

   -106 - Chile: part of the population of Parinacota Province, Ia. Region of Tarapacá

   - Peru: populations of Pampa Galeras National Reserve and Nuclear Zone, Pedregal, Oscconta and Sawacocha (Province of Lucanas), Sais Picotani (Province of Azangaro), Sais Tupac Amaru (Province of Junín), and of Salinas Aguada Blanca National Reserve (Provinces of Arequipa and Cailloma)

   -107 Populations of Afghanistan, Bhutan, India, Myanmar, Nepal and Pakistan

   -108 Cathartidae

   -109 *Melopsittacus undulatus, Nymphicus hollandicus* and *Psittacula krameri*

   -110 Populations of Botswana, Ethiopia, Kenya, Malawi, Mozambique, the United Republic of Tanzania, Zambia and Zimbabwe, and populations of the following countries subject to the specified annual export quotas:

	1992	1993	1994
Madagascar	3,100	4,100	4,400
(ranched specimens:	3,000	4,000	4,300
wild nuisance specimens:	100	100	100)
Somalia	500	0	0
South Africa	1,000	1,000	1,000
Uganda	2,500	2,500	2,500

Apart from ranched specimens, the United Republic of Tanzania will authorize the export of no more than 100 hunting trophies each year, 400 nuisance animals in 1992, 200 a year in 1993 and 1994 and 100 in 1995 and each following year.

-111 Populations of Australia and Papua New Guinea, and population of Indonesia subject to specified annual export quotas as follows:

	1992	1993	1994
Total	9,700	8,500	8,500
Ranched/captive-bred specimens	7,000	7,000	7,000
Wild specimens	1,500	1,500	1,500
Skins in stock	1,200	0	0

-112 Population of Indonesia

-113 Population of Chile

-114 All species that are not succulent

8. The symbol (+) followed by a number placed against the name of a species or higher taxon denotes that only designated geographically separate populations, subspecies or species of that species or taxon are included in the appendix concerned, as follows:

+201 Population of South America (populations outside South America are not included in the appendices)

+202 Populations of Bhutan, India, Nepal and Pakistan

+203 Populations of Bhutan, China, Mexico and Mongolia

+204 Populations of Cameroon and Nigeria

+205 Population of Asia

+206 Population of India

+207 Populations of Central and North America

+208 Population of Australia

+209 - Chile: part of the population of Parinacota Province, Ia. Region of Tarapacá

- Peru: populations of Pampa Galeras National Reserve and Nuclear Zone, Pedregal, Oscconta and Sawacocha (Province of Lucanas), Sais Picotani (Province of Azangaro), Sais Tupac Amaru (Province of Junín), and of Salinas Aguada Blanca National Reserve (Provinces of Arequipa and Cailloma)

+210 Populations of Afghanistan, Bhutan, India, Myanmar, Nepal and Pakistan

+211 Population of Mexico

+212 Populations of Algeria, Burkina Faso, Cameroon, the Central African Republic, Chad, Mali, Mauritania, Morocco, the Niger, Nigeria, Senegal and the Sudan

+213 Population of the Sudan. This listing will enter into force on 11 July 1992 only, to allow the export of an existing stock of 8,000 skins between 11 June and 11 July 1992, under specific conditions (skins to be tagged, documented and exported under the supervision of an independent observer)

+214 Population of Europe, except the area which formerly constituted the Union of Soviet Socialist Republics

+215 Population of Indonesia with a zero export quota. Export of captive-bred specimens of a maximum length of 15 cm will be limited to 3,000 in 1993 and 4,000 in 1994 from the operation of P.D. Bintang Kalbar, Pontianak, West Kalimantan

+216 All species of New Zealand

+217 Population of Chile

9. The symbol (=) followed by a number placed against the name of a species or higher taxon denotes that the name of that species or taxon shall be interpreted as follows:

=301 Includes family Tupaiidae

=302 Includes generic synonym *Leontideus*

=303 Includes synonym *Saguinus geoffroyi*

=304 Includes synonym *Cercopithecus roloway*

=305 Includes synonym *Colobus badius kirki*

=306 Includes synonym *Colobus badius rufomitratus*

=307 Includes generic synonym *Simias*

=308 Includes generic synonym *Mandrillus*

=309 Includes generic synonym *Rhinopithecus*

=310 Includes synonyms *Bradypus boliviensis* and *Bradypus griseus*

=311 Includes synonym *Priodontes giganteus*

=312 Includes synonym *Physeter catodon*

=313 Includes synonym *Eschrichtius glaucus*

=314 Includes generic synonym *Eubalaena*

=315 Includes synonym *Dusicyon fulvipes*

=316 Also referenced as *Cerdocyon thous*

=317 Includes generic synonym *Fennecus*

=318 Also referenced as *Ursus thibetanus*

=319 Also referenced as *Aonyx microdon* or as *Paraonyx microdon*

=320 Includes synonyms *Lutra annectens*, *Lutra enudris*, *Lutra incarum* and *Lutra platensis*

=321 Includes synonym *Eupleres major*

=322 Also referenced as *Lynx caracal*; includes generic synonym *Caracal*

=323 Also referenced as *Lynx pardinus* or *Felis lynx pardina*

=324 Includes synonyms *Equus kiang* and *Equus onager*

=325 Includes generic synonym *Dama*

=326 Includes generic synonyms *Axis* and *Hyelaphus*

=327 Includes synonym *Bos frontalis*

=328 Includes synonym *Bos grunniens*

=329 Includes generic synonym *Novibos*

=330 Includes generic synonym *Anoa*

=331 Includes synonym *Oryx tao*

=332 Includes synonym *Ovis aries ophion*

=333 Also referenced as *Sula abbotti*

=334 Also referenced as *Ciconia ciconia boyciana*

=335 Also referenced as *Anas platyrhynchos laysanensis*

=336 Also referenced as *Aquila heliaca adalberti*

=337 Also referenced as *Falco peregrinus pelegrinoides*

=338 Includes synonym *Falco babylonicus*

=339 Also referenced as *Crax mitu mitu*

=340 Includes generic synonym *Aburria*

=341 Formerly included in species *Crossoptilon crossoptilon*

=342 Formerly included in species *Polyplectron malacense*

=343 Includes synonym *Rheinardia nigrescens*

=344 Also referenced as *Tricholimnas sylvestris*

=345 Also referenced as *Choriotis nigriceps*

=346 Also referenced as *Houbaropsis bengalensis*

=347 Also referenced as *Amazona dufresniana rhodocorytha*

=348 Often traded under the incorrect designation *Ara caninde*

=348a Also referenced as *Cyanoramphus novaezelandiae cookii*

=349 Also referenced as *Opopsitta diophthalma coxeni*

=350 Also referenced as *Geopsittacus occidentalis*

=351 Formerly included in species *Psephotus chrysopterygius*

=352 Formerly included in genus *Gallirex*; also referenced as *Tauraco porphyreolophus*

=353 Formerly included in species *Tauraco corythaix*

=354 Also referenced as *Otus gurneyi*

=355 Also referenced as *Ninox novaeseelandiae royana*

=356 Formerly included in genus *Ramphodon*

=357 Formerly included in genus *Rhinoplax*

=357a Also referenced as *Pitta brachyura nympha*

=358 Also referenced as *Muscicapa ruecki* or as *Niltava ruecki*

=359 Also referenced as *Meliphaga cassidix*

=360 Formerly included in genus *Spinus*

=361 Includes generic synonyms *Nicoria* and *Geoemyda* (part)

=362 Also referenced in genus *Testudo*

=363 Formerly included in *Podocnemis* spp.

=364 Includes Alligatoridae, Crocodylidae and Gavialidae

=365 Formerly included in *Chamaeleo* spp.

=366 Also referenced as *Constrictor constrictor occidentalis*

=367 Includes synonym *Pseudoboa cloelia*

=368 Also referenced as *Hydrodynastes gigas*

=369 Includes generic synonym *Megalobatrachus*

=370 *Sensu* D'Abrera

=371 Also referenced in genus *Dysnomia*

=372 Includes generic synonym *Proptera*

=373 Also referenced in genus *Carunculina*

=374 Includes generic synonym *Micromya*

=375 Includes generic synonym *Papuina*

=376 Also referenced as *Podophyllum emodi*

=377 Also referenced in genus *Echinocactus*

=378 Also referenced in genus *Escobaria*

=379 Also referenced as *Lobeira macdougallii* or as *Nopalxochia macdougallii*

=380 Also referenced as *Echinocereus lindsayi*

=381 Also referenced as *Wilcoxia schmollii*

=382 Also referenced as *Solisia pectinata*

=383 Also referenced as *Backebergia militaris*

=384 Also referenced in genus *Toumeya*

=385 Also referenced in genus *Toumeya* or in genus *Sclerocactus*

=386 Also referenced as *Ancistrocactus tobuschii*

=387 Also referenced in genus *Neolloydia* or in genus *Echinomastus*

=388 Also referenced in genus *Neolloydia*

=389 Also referenced as *Saussurea lappa*

=390 Also referenced as *Engelhardia pterocarpa*

=391 Includes families Apostasiaceae and Cypripediaceae as subfamilies Apostasioideae and Cypripedioideae

=392 Also referenced as *Lycaste virginalis* var. *alba*

=393 Also referenced as *Sarracenia rubra alabamensis*

=394 Also referenced as *Sarracenia rubra jonesii*

=395 Includes synonym *Stangeria paradoxa*

=396 Includes synonym *Welwitschia bainesii*

10. The symbol (°) followed by a number placed against the name of a species or higher taxon shall be interpreted as follows:

°501 Annual exports quotas for live specimens and hunting trophies are granted as follows:

Botswana:	5
Namibia:	150
Zimbabwe:	50

The trade in such specimens is subject to the provisions of Article III of the Convention

°502 For the exclusive purpose of allowing international trade in cloth made from wool sheared from live vicuñas of the populations included in Appendix II (see +209), and of items made thereof. The reverse side of the cloth must bear the logotype adopted by the range states of the species, which are signatories to the Convenio para la Conservación y Manejo de la Vicuña, and the selvages either the words VICUÑANDES-CHILE or the words VICUÑANDES-PERU, depending on the country of origin

°503 Fossils are not subject to CITES provisions

°504 Tissue cultures and flasked seedling cultures are not subject to the provisions of the Convention

11. In accordance with Article I, paragraph b, sub-paragraph (iii), of the Convention, the symbol (#) followed by a number placed against the name of a species or higher taxon included in Appendix II designates parts or derivatives which are specified in relation thereto for the purposes of the Convention as follows:

    #1 Designates all parts and derivatives, except:

    a) seeds, spores and pollen (including pollinia); and

    b) tissue cultures and flasked seedling cultures

    #2 Designates all parts and derivatives, except:

    a) seeds and pollen;

    b) tissue cultures and flasked seedling cultures; and

    c) chemical derivatives

    #3 Designates roots and readily recognizable parts thereof

    #4 Designates all parts and derivatives, except:

    a) seeds and pollen;

    b) tissue cultures and flasked seedling cultures;

    c) fruits and parts and derivatives thereof of naturalized or artificially propagated plants; and

    d) separate stem joints (pads) and parts and derivatives thereof of naturalized or artificially propagated plants of the genus *Opuntia* subgenus *Opuntia*

    #5 Designates saw-logs, sawn wood and veneers

    #6 Designates all parts and derivatives, except:

    a) seeds and pollen;

    b) tissue cultures and flasked seedling cultures; and

    c) separate leaves and parts and derivatives thereof of naturalized or artificially propagated plants of the species *Aloe vera*

    #7 Designates all parts and derivatives, except:

    a) seeds and pollen (including pollinia);

    b) tissue cultures and flasked seedling cultures;

    c) cut flowers of artificially propagated plants; and

    d) fruits and parts and derivatives thereof of artificially propagated plants of the genus *Vanilla*

12. As none of the species or higher taxa of FLORA included in Appendix I is annotated to the effect that their hybrids shall be treated in accordance with the provisions of Article III of the Convention, this means that artificially propagated hybrids produced from one or more of these species or taxa may be traded with a certificate of artificial propagation, and that seeds and pollen (including pollinia), cut flowers, tissue cultures and flasked seedling cultures of these hybrids are not subject to the provisions of the Convention.

Appendices - Apéndices - Annexes

	I	II
FAUNA		
MAMMALIA		
MONOTREMATA		
Tachyglossidae		*Zaglossus* spp.
MARSUPIALIA		
Dasyuridae	*Sminthopsis longicaudata* *Sminthopsis psammophila*	
Thylacinidae	*Thylacinus cynocephalus* p.e.	
Peramelidae	*Chaeropus ecaudatus* p.e. *Perameles bougainville*	
Thylacomyidae	*Macrotis lagotis* *Macrotis leucura*	
Phalangeridae		*Phalanger maculatus* *Phalanger orientalis*
Burramyidae		*Burramys parvus*
Vombatidae	*Lasiorhinus krefftii*	
Macropodidae	*Bettongia* spp. *Caloprymnus campestris* p.e.	
		Dendrolagus bennettianus *Dendrolagus inustus* *Dendrolagus lumholtzi* *Dendrolagus ursinus*
	Lagorchestes hirsutus *Lagostrophus fasciatus* *Onychogalea fraenata* *Onychogalea lunata*	
CHIROPTERA		
Pteropodidae		*Acerodon* spp. *Pteropus* spp.*
	Pteropus insularis *Pteropus mariannus* *Pteropus molossinus* *Pteropus phaeocephalus* *Pteropus pilosus* *Pteropus samoensis* *Pteropus tonganus*	

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	I	II
PRIMATES		PRIMATES spp.* =301
Lemuridae	Lemuridae spp.	
Cheirogaleidae	Cheirogaleidae spp.	
Indriidae	Indriidae spp.	
Daubentoniidae	*Daubentonia madagascariensis*	
Callithricidae	*Callithrix jacchus aurita* *Callithrix jacchus flaviceps* *Leontopithecus* spp. =302 *Saguinus bicolor* *Saguinus leucopus* *Saguinus oedipus* =303	
Callimiconidae	*Callimico goeldii*	
Cebidae	*Alouatta palliata* *Ateles geoffroyi frontatus* *Ateles geoffroyi panamensis* *Brachyteles arachnoides* *Cacajao* spp. *Chiropotes albinasus* *Lagothrix flavicauda* *Saimiri oerstedii*	
Cercopithecidae	*Cercocebus galeritus galeritus* *Cercopithecus diana* =304 *Colobus pennantii kirki* =305 *Colobus rufomitratus* =306 *Macaca silenus* *Nasalis* spp. =307 *Papio leucophaeus* =308 *Papio sphinx* =308 *Presbytis entellus* *Presbytis geei* *Presbytis pileata* *Presbytis potenziani* *Pygathrix* spp. =309	
Hylobatidae	Hylobatidae spp.	
Pongidae	Pongidae spp.	
EDENTATA		
Myrmecophagidae		*Myrmecophaga tridactyla*
Bradypodidae		*Bradypus variegatus* =310
Dasypodidae	*Priodontes maximus* =311	

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	I	II
PHOLIDOTA		
Manidae		*Manis crassicaudata* *Manis javanica* *Manis pentadactyla*
	Manis temminckii	
LAGOMORPHA		
Leporidae	*Caprolagus hispidus* *Romerolagus diazi*	
RODENTIA		
Sciuridae	*Cynomys mexicanus*	
		Ratufa spp.
Muridae	*Leporillus conditor* *Pseudomys praeconis* *Xeromys myoides* *Zyzomys pedunculatus*	
Chinchillidae	*Chinchilla* spp. +201	
CETACEA		CETACEA spp. *
Platanistidae	*Lipotes vexillifer* *Platanista* spp.	
Ziphiidae	*Berardius* spp. *Hyperoodon* spp.	
Physeteridae	*Physeter macrocephalus* =312	
Delphinidae	*Sotalia* spp. *Sousa* spp.	
Phocoenidae	*Neophocaena phocaenoides* *Phocoena sinus*	
Eschrichtidae	*Eschrichtius robustus* =313	
Balaenopteridae	*Balaenoptera acutorostrata* ** -101 *Balaenoptera borealis* *Balaenoptera edeni* *Balaenoptera musculus* *Balaenoptera physalus* *Megaptera novaeangliae*	
Balaenidae	*Balaena* spp. =314 *Caperea marginata*	

Appendices - Apéndices - Annexes

	I	II
CARNIVORA		
Canidae	*Canis lupus* ** +202	*Canis lupus* * -102
		Chrysocyon brachyurus
		Cuon alpinus
		Dusicyon culpaeus
		Dusicyon griseus =315
		Dusicyon gymnocercus
		Dusicyon thous =316
	Speothos venaticus	
		Vulpes cana
		Vulpes zerda =317
Ursidae		Ursidae spp. *
	Ailuropoda melanoleuca	
	Helarctos malayanus	
	Melursus ursinus	
	Selenarctos thibetanus =318	
	Tremarctos ornatus	
	Ursus arctos ** +203	
	Ursus arctos isabellinus	
Procyonidae		*Ailurus fulgens*
Mustelidae	*Aonyx congica* ** +204 =319	
		Conepatus humboldtii
	Enhydra lutris nereis	
	Lutra felina	
	Lutra longicaudis =320	
	Lutra lutra	
	Lutra povocax	
		Lutrinae spp. *
	Mustela nigripes	
	Pteronura brasiliensis	
Viverridae		*Cryptoprocta ferox*
		Cynogale bennettii
		Eupleres goudotii =321
		Fossa fossa
		Hemigalus derbyanus
		Prionodon linsang
	Prionodon pardicolor	
Hyaenidae	*Hyaena brunnea*	
Felidae		Felidae spp. *
	Acinonyx jubatus °501	
	Felis bengalensis bengalensis ** -103	
	Felis caracal ** +205 =322	
	Felis concolor coryi	
	Felis concolor costaricensis	
	Felis concolor cougar	
	Felis geoffroyi	
	Felis jacobita	

Appendices - Apéndices - Annexes

	I	II
Felidae (cont.)	*Felis marmorata* *Felis nigripes* *Felis paradalis* *Felis pardina* =323 *Felis planiceps* *Felis rubiginosa* ** +206 *Felis temmincki* *Felis tigrina* *Felis wiedii* *Felis yagouaroundi* ** +207 *Neofelis nebulosa* *Panthera leo persica* *Panthera onca* *Panthera pardus* *Panthera tigris* *Panthera uncia*	
PINNIPEDIA		
Otariidae	*Arctocephalus townsendi*	*Arctocephalus* spp. *
Phocidae	*Monachus* spp.	*Mirounga leonina*
PROBOSCIDEA		
Elephantidae	*Elephas maximus* *Loxodonta africana*	
SIRENIA		
Dugongidae	*Dugong dugon* ** -104	*Dugong dugon* * +208
Trichechidae	*Trichechus inunguis* *Trichechus manatus*	*Trichechus senegalensis*
PERISSODACTYLA		
Equidae	*Equus africanus* *Equus grevyi* *Equus hemionus hemionus* *Equus hemionus khur* *Equus przewalskii* *Equus zebra zebra*	*Equus hemionus* * =324 *Equus zebra hartmannae*
Tapiridae	Tapiridae spp. **	*Tapirus terrestris*
Rhinocerotidae	Rhinocerotidae spp.	

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	I	II
ARTIODACTYLA		
Suidae	*Babyrousa babyrussa* *Sus salvanius*	
Tayassuidae		Tayassuidae spp. * -105
	Catagonus wagneri	
Hippopotamidae		*Choeropsis liberiensis*
Camelidae		*Lama guanicoe*
	Vicugna vicugna ** -106	*Vicugna vicugna* * +209 °502
Cervidae	*Blastocerus dichotomus*	
	Cervus dama mesopotamicus =325	
	Cervus duvauceli	
		Cervus elaphus bactrianus
	Cervus elaphus hanglu	
	Cervus eldi	
	Cervus porcinus annamiticus =326	
	Cervus porcinus calamianensis =326	
	Cervus porcinus kuhli =326	
	Hippocamelus spp.	
	Moschus spp. ** +210	*Moschus* spp. * -107
	Muntiacus crinifrons	
	Ozotoceros bezoarticus	
		Pudu mephistophiles
	Pudu pudu	
Bovidae	*Addax nasomaculatus*	
		Ammotragus lervia
	Antilocapra americana +211	
	Bison bison athabascae	
	Bos gaurus =327	
	Bos mutus =328	
	Bos sauveli =329	
	Bubalus depressicornis =330	
	Bubalus mindorensis =330	
	Bubalus quarlesi =330	
		Budorcas taxicolor
	Capra falconeri	
	Capricornis sumatraensis	
		Cephalophus dorsalis
	Cephalophus jentinki	
		Cephalophus monticola
		Cephalophus ogilbyi
		Cephalophus sylvicultor
		Cephalophus zebra
		Damaliscus dorcas dorcas
	Gazella dama	
	Hippotragus niger variani	
		Kobus leche
	Nemorhaedus goral	
	Oryx dammah =331	
	Oryx leucoryx	

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Bovidae (cont.)		*Ovis ammon* *
	Ovis ammon hodgsoni	*Ovis canadensis* +211
	Ovis orientalis ophion =332	
	Ovis vignei	
	Pantholops hodgsoni	
	Rupicapra rupicapra ornata	
AVES		
STRUTHIONIFORMES		
Struthionidae	*Struthio camelus* +212	
RHEIFORMES		
Rheidae	*Pterocnemia pennata*	
		Rhea americana
TINAMIFORMES		
Tinamidae		*Rhynchotus rufescens maculicollis*
		Rhynchotus rufescens pallescens
		Rhynchotus rufescens rufescens
	Tinamus solitarius	
SPHENISCIFORMES		
Spheniscidae		*Spheniscus demersus*
	Spheniscus humboldti	
PODICIPEDIFORMES		
Podicipedidae	*Podilymbus gigas*	
PROCELLARIIFORMES		
Diomedeidae	*Diomedea albatrus*	
PELECANIFORMES		
Pelecanidae	*Pelecanus crispus*	
Sulidae	*Papasula abbotti* =333	
Fregatidae	*Fregata andrewsi*	
CICONIIFORMES		
Balaenicipitidae		*Balaeniceps rex*
Ciconiidae	*Ciconia boyciana* =334	
		Ciconia nigra
	Jabiru mycteria	
	Mycteria cinerea	

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Threskiornithidae		*Eudocimus ruber* *Geronticus calvus*
	Geronticus eremita *Nipponia nippon*	
		Platalea leucorodia
Phoenicopteridae		Phoenicopteridae spp.
ANSERIFORMES		
Anatidae		*Anas aucklandica aucklandica* *Anas aucklandica chlorotis*
	Anas aucklandica nesiotis	
		Anas bernieri *Anas formosa*
	Anas laysanensis =335 *Anas oustaleti* *Branta canadensis leucopareia*	
		Branta ruficollis
	Branta sandvicensis *Cairina scutulata*	
		Coscoroba coscoroba *Cygnus melanocorypha* *Dendrocygna arborea* *Oxyura leucocephala*
	Rhodonessa caryophyllacea p.e.	
		Sarkidiornis melanotos
FALCONIFORMES		FALCONIFORMES spp. * -108
Cathartidae	*Gymnogyps californianus* *Vultur gryphus*	
Accipitridae	*Aquila adalberti* =336 *Aquila heliaca* *Chondrohierax uncinatus wilsonii* *Haliaeetus albicilla* *Haliaeetus leucocephalus* *Harpia harpyja* *Pithecophaga jefferyi*	
Falconidae	*Falco araea* *Falco jugger* *Falco newtoni aldabranus* *Falco pelegrinoides* =337 *Falco peregrinus* =338 *Falco punctatus* *Falco rusticolus*	

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GALLIFORMES		
Megapodiidae	*Macrocephalon maleo*	
Cracidae	*Crax blumenbachii*	
	Mitu mitu mitu =339	
	Oreophasis derbianus	
	Penelope albipennis	
	Pipile jacutinga =340	
	Pipile pipile pipile =340	
Phasianidae		*Argusianus argus*
	Catreus wallichii	
	Colinus virginianus ridgwayi	
	Crossoptilon crossoptilon	
	Crossoptilon harmani =341	
	Crossoptilon mantchuricum	
		Gallus sonneratii
		Ithaginis cruentus
	Lophophorus spp.	
	Lophura edwardsi	
	Lophura imperialis	
	Lophura swinhoii	
		Pavo muticus
		Polyplectron bicalcaratum
	Polyplectron emphanum	
		Polyplectron germaini
		Polyplectron malacense
		Polyplectron schleiermacheri =342
	Rheinardia ocellata =343	
	Syrmaticus ellioti	
	Syrmaticus humiae	
	Syrmaticus mikado	
	Tetraogallus caspius	
	Tetraogallus tibetanus	
	Tragopan blythii	
	Tragopan caboti	
	Tragopan melanocephalus	
	Tympanuchus cupido attwateri	
GRUIFORMES		
Turnicidae		*Turnix melanogaster*
Pedionomidae		*Pedionomus torquatus*
Gruidae		Gruidae spp. *
	Grus americana	
	Grus canadensis nesiotes	
	Grus canadensis pulla	
	Grus japonensis	
	Grus leucogeranus	
	Grus monacha	
	Grus nigricollis	
	Grus vipio	

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Rallidae	*Gallirallus sylvestris* =344	*Gallirallus australis hectori*
Rhynochetidae	*Rhynochetus jubata*	
Otididae		Otididae spp. *
	Ardeotis nigriceps =345	
	Chlamydotis undulata	
	Eupodotis bengalensis =346	
CHARADRIIFORMES		
Scolopacidae	*Numenius borealis*	
	Numenius tenuirostris	
	Tringa guttifer	
Laridae	*Larus relictus*	
COLUMBIFORMES		
Columbidae	*Caloenas nicobarica*	
	Ducula mindorensis	
		Gallicolumba luzonica
		Goura spp.
PSITTACIFORMES		PSITTACIFORMES spp. * -109
Psittacidae	*Amazona arausiaca*	
	Amazona barbadensis	
	Amazona brasiliensis	
	Amazona guildingii	
	Amazona imperialis	
	Amazona leucocephala	
	Amazona pretrei	
	Amazona rhodocorytha =347	
	Amazona tucumana	
	Amazona versicolor	
	Amazona vinacea	
	Amazona vittata	
	Anodorhynchus spp.	
	Ara ambigua	
	Ara glaucogularis =348	
	Ara macao	
	Ara maracana	
	Ara militaris	
	Ara rubrogenys	
	Aratinga guarouba	
	Cacatua goffini	
	Cacatua haematuropygia	
	Cacatua moluccensis	
	Cyanopsitta spixii	
	Cyanoramphus auriceps forbesi	
	Cyanoramphus cookii =348a	
	Cyanoramphus novaezelandiae	

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Psittacidae (cont.)	*Cyclopsitta diophthalma coxeni* =349 *Neophema chrysogaster* *Ognorhynchus icterotis* *Pezoporus occidentalis* p.e. =350 *Pezoporus wallicus* *Pionopsitta pileata* *Probosciger aterrimus* *Psephotus chrysopterygius* *Psephotus dissimilis* =351 *Psephotus pulcherrimus* p.e. *Psittacula echo* *Psittacus erithacus princeps* *Pyrrhura cruentata* *Rhynchopsitta* spp. *Strigops habroptilus*	
CUCULIFORMES		
Musophagidae		*Musophaga porphyreolophus* =352 *Tauraco corythaix* *Tauraco fischeri* =353 *Tauraco livingstonii* =353 *Tauraco persa* =353 *Tauraco schalowi* =353 *Tauraco schuettii* =353
STRIGIFORMES		STRIGIFORMES Spp. *
Tytonidae	*Tyto soumagnei*	
Strigidae	*Athene blewitti* *Mimizuku gurneyi* =354 *Ninox novaeseelandiae undulata* =355 *Ninox squamipila natalis*	
APODIFORMES		
Trochilidae	*Glaucis dohrnii* =356	Trochilidae spp. *
TROGONIFORMES		
Trogonidae	*Pharomachrus mocinno*	
CORACIIFORMES		
Bucerotidae	*Aceros nipalensis* *Aceros subruficollis*	*Aceros* spp. * *Anorrhinus* spp. *Anthracoceros* spp. *Buceros* spp. *

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Bucerotidae (cont.)	*Buceros bicornis* *Buceros vigil* =357	
		Penelopides spp. *Ptilolaemus* spp.
PICIFORMES		
Ramphastidae		*Pteroglossus aracari* *Pteroglossus viridis* *Ramphastos sulfuratus* *Ramphastos toco* *Ramphastos tucanus* *Ramphastos vitellinus*
Picidae	*Campephilus imperialis* *Dryocopus javensis richardsi*	
PASSERIFORMES		
Cotingidae	*Cotinga maculata*	
		Rupicola spp.
	Xipholena atropurpurea	
Pittidae		*Pitta nympha* =357a *Pitta guajana*
	Pitta gurneyi *Pitta kochi*	
Atrichornithidae	*Atrichornis clamosus*	
Hirundinidae	*Pseudochelidon sirintarae*	
Muscicapidae		*Cyornis ruckii* =358
	Dasyornis broadbenti litoralis p.e. *Dasyornis longirostris* *Picathartes* spp.	
Zosteropidae	*Zosterops albogularis*	
Meliphagidae	*Lichenostomus melanops cassidix* =359	
Emberizidae		*Gubernatrix cristata* *Paroaria capitata* *Paroaria coronata*
Fringillidae	*Carduelis cucullata* =360	
		Carduelis yarrellii =360
Estrildidae		*Poephila cincta cincta*
Sturnidae	*Leucopsar rothschildi*	
Paradisaeidae		Paradisaeidae spp.

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REPTILIA		
TESTUDINATA		
Dermatemydidae		*Dermatemys mawii*
Emydidae	*Batagur baska*	
		Clemmys insculpta
	Clemmys muhlenbergi	
	Geoclemys hamiltonii	
	Kachuga tecta tecta	
	Melanochelys tricarinata =361	
	Morenia ocellata	
	Terrapene coahuila	
Testudinidae		Testudinidae spp. *
	Geochelone elephantopus =362	
	Geochelone radiata =362	
	Geochelone yniphora =362	
	Gopherus flavomarginatus	
	Psammobates geometricus =362	
Cheloniidae	Cheloniidae spp.	
Dermochelyidae	*Dermochelys coriacea*	
Trionychidae	*Lissemys punctata punctata*	
	Trionyx ater	
	Trionyx gangeticus	
	Trionyx hurum	
	Trionyx nigricans	
Pelomedusidae		*Erymnochelys madagascariensis* =363
		Peltocephalus dumeriliana =363
		Podocnemis spp.
Chelidae	*Pseudemydura umbrina*	
CROCODYLIA		CROCODYLIA spp. * =364
Alligatoridae	*Alligator sinensis*	
	Caiman crocodilus apaporiensis	
	Caiman latirostris	
	Melanosuchus niger	
Crocodylidae	*Crocodylus acutus*	
	Crocodylus cataphractus	
	Crocodylus intermedius	
	Crocodylus moreletii	
	Crocodylus niloticus ** -110	
	Crocodylus niloticus +213	
	Crocodylus novaeguineae mindorensis	
	Crocodylus palustris	
	Crocodylus porosus ** -111	

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Crocodylidae (cont.)	*Crocodylus rhombifer* *Crocodylus siamensis* *Osteolaemus tetraspis* *Tomistoma schlegelii*	
Gavialidae	*Gavialis gangeticus*	
RHYNCHOCEPHALIA		
Sphenodontidae	*Sphenodon punctatus*	
SAURIA		
Gekkonidae		*Cyrtodactylus serpensinsula* *Phelsuma* spp.
Agamidae		*Uromastyx* spp.
Chamaeleonidae		*Bradypodion* spp. =365 *Chamaeleo* spp.
Iguanidae	*Brachylophus* spp. *Cyclura* spp. *Sauromalus varius*	*Amblyrhynchus cristatus* *Conolophus* spp. *Iguana* spp. *Phrynosoma coronatum*
Lacertidae	*Gallotia simonyi*	*Podarcis lilfordi* *Podarcis pityusensis*
Cordylidae		*Cordylus* spp. *Pseudocordylus* spp.
Teiidae		*Cnemidophorus hyperythrus* *Crocodilurus lacertinus* *Dracaena* spp. *Tupinambis* spp.
Scincidae		*Corucia zebrata*
Xenosauridae		*Shinisaurus crocodilurus*
Helodermatidae		*Heloderma* spp.
Varanidae	*Varanus bengalensis* *Varanus flavescens* *Varanus griseus* *Varanus komodoensis*	*Varanus* spp. *

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SERPENTES		
Boidae		Boidae spp. *
	Acrantophis spp.	
	Boa constrictor occidentalis =366	
	Bolyeria multocarinata	
	Casarea dussumieri	
	Epicrates inornatus	
	Epicrates monensis	
	Epicrates subflavus	
	Python molurus molurus	
	Sanzinia madagascariensis	
Colubridae		*Clelia clelia* =367
		Cyclagras gigas =368
		Elachistodon westermanni
		Ptyas mucosus
Elapidae		*Hoplocephalus bungaroides*
		Naja naja
		Ophiophagus hannah
Viperidae	*Vipera ursinii* +214	
		Vipera wagneri
CAUDATA		
Ambystomidae		*Ambystoma dumerilii*
		Ambystoma mexicanum
Cryptobranchidae	*Andrias* spp. =369	
ANURA		
Bufonidae	*Atelopus varius zeteki*	
		Bufo retiformis
	Bufa superciliaris	
	Nectophrynoides spp.	
Myobatrachidae		*Rheobatrachus* spp.
Dendrobatidae		*Dendrobates* spp.
		Phyllobates spp.
Ranidae		*Rana hexadactyla*
		Rana tigerina
Microhylidae	*Dyscophus antongilii*	
PISCES		
CERATODIFORMES		
Ceratodidae		*Neoceratodus forsteri*

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COELACANTHIFORMES		
Coelacanthidae	*Latimeria chalumnae*	
ACIPENSERIFORMES		
Acipenseridae	*Acipenser brevirostrum*	
		Acipenser oxyrhynchus
	Acipenser sturio	
Polyodontidae		*Polyodon spathula*
OSTEOGLOSSIFORMES		
Osteoglossidae		*Arapaima gigas*
	Scleropages formosus ** -112	*Scleropages formosus* * +215
CYPRINIFORMES		
Cyprinidae		*Caecobarbus geertsi*
	Probarbus jullieni	
Catostomidae	*Chasmistes cujus*	
SILURIFORMES		
Schilbeidae	*Pangasianodon gigas*	
PERCIFORMES		
Sciaenidae	*Cynoscion macdonaldi*	
INSECTA		
LEPIDOPTERA		
Papilionidae		*Bhutanitis* spp.
		Ornithoptera spp. * =370
	Ornithoptera alexandrae	
	Papilio chikae	
	Papilio homerus	
	Papilio hospiton	
		Parnassius apollo
		Teinopalpus spp.
		Trogonoptera spp. =370
		Troides spp. =370
ARACHNIDA		
ARANEAE		
Theraphosidae		*Brachypelma smithi*

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ANNELIDA		
ARHYNCHOBDELLAE		
Hirudinidae		*Hirudo medicinalis*
MOLLUSCA		
VENEROIDA		
Tridacnidae		Tridacnidae spp.
UNIONOIDA		
Unionidae	*Conradilla caelata*	
		Cyprogenia aberti
	Dromus dromas	
	Epioblasma curtisi =371	
	Epioblasma florentina =371	
	Epioblasma sampsoni =371	
	Epioblasma sulcata perobliqua =371	
	Epioblasma torulosa gubernaculum =371	
		Epioblasma torulosa rangiana =371
	Epioblasma torulosa torulosa =371	
	Epioblasma turgidula =371	
	Epioblasma walkeri =371	
	Fusconaia cuneolus	
	Fusconaia edgariana	
		Fusconaia subrotunda
		Lampsilis brevicula
	Lampsilis higginsi	
	Lampsilis orbiculata orbiculata	
	Lampsilis satura	
	Lampsilis virescens	
		Lexingtonia dolabelloides
	Plethobasus cicatricosus	
	Plethobasus cooperianus	
		Pleurobema clava
	Pleurobema plenum	
	Potamilus capax =372	
	Quadrula intermedia	
	Quadrula sparsa	
	Toxolasma cylindrella =373	
	Unio nickliniana	
	Unio tampicoensis tecomatensis	
	Villosa trabalis =374	

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STYLOMMATOPHORA		
Achatinellidae	*Achatinella* spp.	
Camaenidae		*Papustyla pulcherrima* =375
Paryphantidae		*Paryphanta* spp. +216
MESOGASTROPODA		
Strombidae		*Strombus gigas*
ANTHOZOA		
ANTIPATHARIA		ANTIPATHARIA spp.
SCLERACTINIA		SCLERACTINIA spp. °503
HYDROZOA		
ATHECATA		
Milleporidae		Milleporidae spp. °503
Stylasteridae		Stylasteridae spp. °503
ALCYONARIA		
COENOTHECALIA		COENOTHECALIA spp. °503
STOLONIFERA		
Tubiporidae		Tubiporidae spp. °503
FLORA		
AGAVACEAE	*Agave arizonica* *Agave parviflora*	
	Nolina interrata	*Agave victoriae-reginae* #1
AMARYLLIDACEAE		*Galanthus* spp. #1 *Sternbergia* spp. #1
APOCYNACEAE	*Pachypodium baronii* *Pachypodium brevicaule* *Pachypodium decaryi* *Pachypodium namaquanum*	Pachypodium spp. * #1
		Rauvolfia serpentina #2
ARACEAE		*Alocasia sanderiana* #1

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ARALIACEAE		*Panax quinquefolius* #3
ARAUCARIACEAE	*Araucaria araucana* ** +217	*Araucaria araucana* * -113 #1
ASCLEPIADACEAE		*Ceropegia* spp. #1 *Frerea indica* #1
BERBERIDACEAE		*Podophyllum hexandrum* =376 #2
BROMELIACEAE		*Tillandsia harrisii* #1 *Tillandsia kammii* #1 *Tillandsia kautskyi* #1 *Tillandsia mauryana* #1 *Tillandsia sprengeliana* #1 *Tillandsia sucrei* #1 *Tillandsia xerographica* #1
BYBLIDACEAE		*Byblis* spp. #1
CACTACEAE	*Ariocarpus* spp. *Astrophytum asterias* =377 *Aztekium ritteri* *Coryphantha minima* =378 *Coryphantha sneedii* =378 *Coryphantha werdermannii* *Discocactus* spp. *Disocactus macdougallii* =379 *Echinocereus ferreirianus* var. *lindsayi* =380 *Echinocereus schmollii* =381 *Leuchtenbergia principis* *Mammillaria pectinifera* =382 *Mammillaria plumosa* *Mammillaria solisioides* *Melocactus conoideus* *Melocactus deinacanthus* *Melocactus glaucescens* *Melocactus paucispinus* *Obregonia denegrii* *Pachycereus militaris* =383 *Pediocactus bradyi* =384 *Pediocactus despainii* *Pediocactus knowltonii* =384 *Pediocactus papyracanthus* =385 *Pediocactus paradinei* *Pediocactus peeblesianus* =384 *Pediocactus sileri* *Pediocactus winkleri* *Pelecyphora* spp. *Sclerocactus brevihamaticus* =386 *Sclerocactus glaucus* *Sclerocactus erectocentrus* =387 *Sclerocactus mariposensis* =387	CACTACEAE spp. * #4

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CACTACEAE (cont.)	*Sclerocactus mesae-verdae* *Sclerocactus pubispinus* *Sclerocactus wrightiae* *Strombocactus disciformis* *Turbinicarpus* spp. =388 *Uebelmannia* spp.	
CARYOCARACEAE		*Caryocar costaricense* #1
CEPHALOTACEAE		*Cephalotus follicularis* #1
COMPOSITAE (ASTERACEAE)	*Saussurea costus* =389	
CRASSULACEAE	*Dudleya stolonifera* *Dudleya traskiae*	
CUPRESSACEAE	*Fitzroya cupressoides* *Pilgerodendron uviferum*	
CYATHEACEAE		CYATHEACEAE spp. #1
CYCADACEAE	*Cycas beddomei*	CYCADACEAE spp. * #1
DIAPENSIACEAE		*Shortia galacifolia* #1
DICKSONIACEAE		DICKSONIACEAE spp. #1
DIDIEREACEAE		DIDIEREACEAE spp. #1
DIOSCOREACEAE		*Dioscorea deltoidea* #1
DROSERACEAE		*Dionea muscipula* #1
ERICACEAE		*Kalmia cuneata* #1
EUPHORBIACEAE		*Euphorbia* spp. -114 #1
	Euphorbia ambovombensis *Euphorbia cylindrifolia* *Euphorbia decaryi* *Euphorbia francoisii* *Euphorbia moratii* *Euphorbia parvicyathophora* *Euphorbia primulifolia* *Euphorbia quartziticola* *Euphorbia tulearensis*	
FOUQUIERIACEAE		*Fouquieria columnaris* #1
	Fouquieria fasciculata *Fouquieria purpusii*	

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JUGLANDACEAE		*Oreomunnea pterocarpa* =390 #1
LEGUMINOSAE (FABACEAE)	*Dalbergia nigra*	*Pericopsis elata* #5 *Platymiscium pleiostachyum* #1
LILIACEAE	*Aloe albida* *Aloe pillansii* *Aloe polyphylla* *Aloe thorncroftii* *Aloe vossii*	*Aloe* spp. * #6
MELIACEAE		*Swietenia humilis* #1 *Swietenia mahagoni* #5
NEPENTHACEAE	*Nepenthes khasiana* *Nepenthes rajah*	*Nepenthes* spp. * #1
ORCHIDACEAE	*Cattleya skinneri* °504 *Cattleya trianae* °504 *Didiciea cunninghamii* °504 *Laelia jongheana* °504 *Laelia lobata* °504 *Lycaste skinneri* var. *alba* =392 °504 *Paphiopedilum* spp. °504 *Peristeria elata* °504 *Phragmipedium* spp. °504 *Renanthera imschootiana* °504 *Vanda coerulea* °504	ORCHIDACEAE spp. * =391 #7
PALMAE (ARECACEAE)		*Chrysalidocarpus decipiens* #1 *Neodypsis decaryi* #1
PINACEAE	*Abies guatemalensis*	
PODOCARPACEAE	*Podocarpus parlatorei*	
PORTULACACEAE		*Anacampseros* spp. #1 *Lewisia cotyledon* #1 *Lewisia maguirei* #1 *Lewisia serrata* #1 *Lewisia tweedyi* #1
PRIMULACEAE		*Cyclamen* spp. #1
PROTEACEAE	*Orothamnus zeyheri* *Protea odorata*	
RUBIACEAE	*Balmea stormiae*	

Appendices - Apéndices - Annexes

	I	II
SARRACENIACEAE		*Darlingtonia californica* #1 *Sarracenia* spp. * #1
	Sarracenia alabamensis alabamensis =393 *Sarracenia jonesii* =394 *Sarracenia oreophila*	
STANGERIACEAE	*Stangeria eriopus* =395	
THEACEAE		*Camellia chrysantha* #1
WELWITSCHIACEAE		*Welwitschia mirabilis* =396 #1
ZAMIACEAE		ZAMIACEAE spp. * #1
	Ceratozamia spp. *Chigua* spp. *Encephalartos* spp. *Microcycas calocoma*	
ZINGIBERACEAE		*Hedychium philippinense* #1
ZYGOPHYLLACEAE		*Guaiacum officinale* #1 *Guaiacum sanctum* #1

APPENDIX III

as of 11 June 1992

INTERPRETATION

1. References to taxa higher than species are for the purpose of information or classification only.

2. The symbol (=) followed by a number placed against the name of a species denotes that the name of that species shall be interpreted as follows:

=397 Includes synonym *Tamandua mexicana*

=398 Includes synonym *Cabassous gymnurus*

=399 Includes synonym *Manis longicaudata*

=400 Includes generic synonym *Coendou*

=401 Includes generic synonym *Cuniculus*

=402 Includes synonym *Vulpes vulpes leucopus*

=403 Includes synonym *Nasua narica*

=404 Includes synonym *Galictis allamandi*

=405 Includes synonym *Martes gwatkinsi*

=406 Includes generic synonym *Viverra*

=407 Also referenced as *Tragelaphus eurycerus*; includes generic synonym *Taurotragus*

=408 Formerly included as *Bubalus bubalis* (domesticated form)

=409 Also referenced as *Ardeola ibis*

=410 Also referenced as *Egretta alba*

=411 Also referenced as *Hagedashia hagedash*

=412 Also referenced as *Lampribis rara*

=413 Also referenced as *Spatula clypeata*

=414 Also referenced as *Nyroca nyroca*

=415 Includes synonym *Dendrocygna fulva*

=416 Also referenced as *Cairina hartlaubii*

=417 Also referenced as *Crax pauxi*

=418 Also referenced as *Arborophila brunneopectus* (in part)

=419 Also referenced as *Turturoena iriditorques* or as *Columba malherbii* (in part)

=420 Also referenced as *Nesoenas mayeri*

=421 Also referenced as *Treron australis* (in part)

=422 Also referenced as *Calopelia brehmeri*; includes synonym *Calopelia puella*

=423 Also referenced as *Tympanistria tympanistria*

=424 Also referenced as *Tchitrea bourbonnensis*

=425 Also referenced as *Estrilda subflava* or as *Sporaeginthus subflavus*

=426 Also referenced as *Lagonosticta larvata* (in part)

=427 Includes generic synonym *Spermestes*

=428 Also referenced as *Euodice cantans*; includes synonym *Lonchura malabarica*

=429 Also referenced as *Hypargos nitidulus*

=430 Also referenced as *Parmoptila woodhousei* (in part)

=431 Includes synonyms *Pyrenestes frommi* and *Pyrenestes rothschildi*

=432 Also referenced as *Estrilda bengala*

=433 Also referenced as *Malimbus rubriceps* or as *Anaplectes melanotis*

=434 Also referenced as *Coliuspasser ardens*

=435 Also referenced as *Euplectes orix* (in part)

=436 Also referenced as *Coliuspasser macrourus*

=437 Also referenced as *Ploceus superciliosus*

=438 Includes synonym *Ploceus nigriceps*

=439 Also referenced as *Sitagra luteola*

=440 Also referenced as *Sitagra melanocephala*

=441 Also referenced as *Hypochera chalybeata*; includes synonyms *Vidua amauropteryx, Vidua centralis, Vidua neumanni, Vidua okavangoensis* and *Vidua ultramarina*

=442 Also referenced as *Vidua paradisaea* (in part)

=443 Also referenced as *Pelusios subniger*

=444 Formerly included in genus *Natrix*

3. The names of the countries placed against the names of species are those of the Parties submitting these species for inclusion in this appendix.

4. In accordance with Article I, paragraph (b), sub-paragraphs (ii) and (iii), of the Convention, and with Resolutions Conf. 4.24 and Conf. 6.18, the symbol (#) followed by a number placed against the name of a species included in Appendix III designates parts or derivatives which are specified in relation thereto for the purposes of the Convention as follows:

#1 Designates all readily recognizable parts and derivatives, except:

a) seeds. spores and pollen (including pollinia); and

b) tissue cultures and flasked seedling cultures.

FAUNA		
MAMMALIA		
CHIROPTERA		
Phyllostomidae	*Vampyrops lineatus*	Uruguay
EDENTATA		
Myrmecophagidae	*Tamandua tetradactyla* =397	Guatemala
Choloepidae	*Choloepus hoffmanni*	Costa Rica
Dasypodidae	*Cabassous centralis*	Costa Rica
	Cabassous tatouay =398	Uruguay
PHOLIDOTA		
Manidae	*Manis gigantea*	Ghana
	Manis tetradactyla =399	Ghana
	Manis tricuspis	Ghana

RODENTIA		
Sciuridae	*Epixerus ebii*	Ghana
	Marmota caudata	India
	Marmota himalayana	India
	Sciurus deppei	Costa Rica
Anomaluridae	*Anomalurus beecrofti*	Ghana
	Anomalurus derbianus	Ghana
	Anomalurus peli	Ghana
	Idiurus macrotis	Ghana
Hystricidae	Hystrix cristata	Ghana
Erethizontidae	*Sphiggurus mexicanus* =400	Honduras
	Sphiggurus spinosus =400	Uruguay
Agoutidae	*Agouti paca* =401	Honduras
Dasyproctidae	*Dasyprocta punctata*	Honduras
CARNIVORA		
Canidae	Canis aureus	India
	Vulpes bengalensis	India
	Vulpes vulpes griffithi	India
	Vulpes vulpes montana	India
	Vulpes vulpes pusilla =402	India
Procyonidae	*Bassaricyon gabbii*	Costa Rica
	Bassariscus sumichrasti	Costa Rica
	Nasua nasua =403	Honduras
	Nasua nasua solitaria	Uruguay
	Potos flavus	Honduras
Mustelidae	*Eira barbara*	Honduras
	Galictis vittata =404	Costa Rica
	Martes flavigula =405	India
	Martes foina intermedia	India
	Mellivora capensis	Botswana, Ghana
	Mustela altaica	India
	Mustela erminea	India
	Mustela kathiah	India
	Mustela sibirica	India
Viverridae	*Arctictis binturong*	India
	Civettictis civetta =406	Botswana
	Paguma larvata	India
	Paradoxurus hermaphroditus	India
	Paradoxurus jerdoni	India
	Viverra megaspila	India
	Viverra zibetha	India
	Viverricula indica	India
Herpestidae	*Herpestes auropunctatus*	India
	Herpestes edwardsi	India
	Herpestes fuscus	India
	Herpestes smithii	India

Herpestidae (cont)	*Herpestes urva*	India
	Herpestes vitticollis	India
Protelidae	*Proteles cristatus*	Botswana
PINNIPEDIA		
Odobenidae	*Odobenus rosmarus*	Canada
ARTIODACTYLA		
Hippopotamidae	*Hippopotamus amphibius*	Ghana
Tragulidae	*Hyemoschus aquaticus*	Ghana
Cervidae	*Cervus elaphus barbarus*	Tunisia
	Mazama americana cerasina	Guatemala
	Odocoileus virginianus mayensis	Guatemala
Bovidae	*Antilope cervicapra*	Nepal
	Boocercus eurycerus =407	Ghana
	Bubalus arnee =408	Nepal
	Damaliscus lunatus	Ghana
	Gazella cuvieri	Tunisia
	Gazella dorcas	Tunisia
	Gazella leptoceros	Tunisia
	Tetracerus quadricornis	Nepal
	Tragelaphus spekei	Ghana
AVES		
CICONIIFORMES		
Ardeidae	*Ardea goliath*	Ghana
	Bubulcus ibis =409	Ghana
	Casmerodius albus =410	Ghana
	Egretta garzetta	Ghana
Ciconiidae	*Ephippiorhynchus senegalensis*	Ghana
	Leptoptilos crumeniferus	Ghana
Threskiornithidae	*Bostrychia hagedash* =411	Ghana
	Bostrichya rara =412	Ghana
	Threskiornis aethiopicus	Ghana
ANSERIFORMES		
Anatidae	*Alopochen aegyptiacus*	Ghana
	Anas acuta	Ghana
	Anas capensis	Ghana
	Anas clypeata =413	Ghana
	Anas crecca	Ghana
	Anas penelope	Ghana
	Anas querquedula	Ghana
	Aythya nyroca =414	Ghana
	Cairina moschata	Honduras
	Dendrocygna autumnalis	Honduras
	Dendrocygna bicolor =415	Ghana, Honduras
	Dendrocygna viduata	Ghana

Anatidae (cont)	*Nettapus auritus*	Ghana
	Plectropterus gambensis	Ghana
	Pteronetta hartlaubii =416	Ghana
FALCONIFORMES		
Cathartidae	*Sarcoramphus papa*	Honduras
GALLIFORMES		
Cracidae	*Crax alberti*	Colombia
	Crax daubentoni	Colombia
	Crax globulosa	Colombia
	Crax rubra	Colombia, Costa Rica, Guatemala, Honduras
	Ortalis vetula	Guatemala, Honduras
	Pauxi pauxi =417	Colombia
	Penelope purpurascens	Honduras
	Penelopina nigra	Guatemala
Phasianidae	*Agelastes meleagrides*	Ghana
	Agriocharis ocellata	Guatemala
	Arborophila charltonii	Malaysia
	Arborophila orientalis =418	Malaysia
	Caloperdix oculea	Malaysia
	Lophura erythrophthalma	Malaysia
	Lophura ignita	Malaysia
	Melanoperdix nigra	Malaysia
	Polyplectron inopinatum	Malaysia
	Rhizothera longirostris	Malaysia
	Rollulus rouloul	Malaysia
	Tragopan satyra	Nepal
CHARADRIIFORMES		
Burhinidae	*Burhinus bistriatus*	Guatemala
COLUMBIFORMES		
Columbidae	*Columba guinea*	Ghana
	Columba iriditorques =419	Ghana
	Columba livia	Ghana
	Columba mayeri =420	Mauritius
	Columba unicincta	Ghana
	Oena capensis	Ghana
	Streptopelia decipiens	Ghana
	Streptopelia roseogrisea	Ghana
	Streptopelia semitorquata	Ghana
	Streptopelia senegalensis	Ghana
	Streptopelia turtur	Ghana
	Streptopelia vinacea	Ghana
	Treron calva =421	Ghana
	Treron waalia	Ghana
	Turtur abyssinicus	Ghana
	Turtur afer	Ghana
	Turtur brehmeri =422	Ghana
	Turtur tympanistria =423	Ghana

PSITTACIFORMES		
Psittacidae	*Psittacula krameri*	Ghana
CUCULIFORMES		
Musophagidae	*Corythaeola cristata*	Ghana
	Crinifer piscator	Ghana
	Musophaga violacea	Ghana
	Tauraco macrorhynchus	Ghana
PICIFORMES		
Capitonidae	*Semnornis ramphastinus*	Colombia
Ramphastidae	*Baillonius bailloni*	Argentina
	Pteroglossus castanotis	Argentina
	Ramphastos dicolorus	Argentina
	Selenidera maculirostris	Argentina
PASSERIFORMES		
Cotingidae	*Cephalopterus ornatus*	Colombia
	Cephalopterus penduliger	Colombia
Muscicapidae	*Bebrornis rodericanus*	Mauritius
	Terpsiphone bourbonnensis =424	Mauritius
Icteridae	*Xanthopsar flavus*	Uruguay
Fringillidae	*Serinus gularis*	Ghana
	Serinus leucopygius	Ghana
	Serinus mozambicus	Ghana
Estrildidae	*Amadina fasciata*	Ghana
	Amandava subflava =425	Ghana
	Estrilda astrild	Ghana
	Estrilda caerulescens	Ghana
	Estrilda melpoda	Ghana
	Estrilda troglodytes	Ghana
	Lagonosticta rara	Ghana
	Lagonosticta rubricata	Ghana
	Lagonosticta rufopicta	Ghana
	Lagonosticta senegala	Ghana
	Lagonosticta vinacea =426	Ghana
	Lonchura bicolor =427	Ghana
	Lonchura cantans =428	Ghana
	Lonchura cucullata =427	Ghana
	Lonchura fringilloides =427	Ghana
	Mandingoa nitidula =429	Ghana
	Nesocharis capistrata	Ghana
	Nigrita bicolor	Ghana
	Nigrita canicapilla	Ghana
	Nigrita fusconota	Ghana
	Nigrita luteifrons	Ghana
	Ortygospiza atricollis	Ghana
	Parmoptila rubrifrons =430	Ghana
	Pholidornis rushiae	Ghana
	Pyrenestes ostrinus =431	Ghana

Estrildidae (cont)	*Pytilia hypogrammica*	Ghana
	Pytilia phoenicoptera	Ghana
	Spermophaga haematina	Ghana
	Uraeginthus bengalus =432	Ghana
Ploceidae	*Amblyospiza albifrons*	Ghana
	Anaplectes rubriceps =433	Ghana
	Anomalospiza imberbis	Ghana
	Bubalornis albirostris	Ghana
	Euplectes afer	Ghana
	Euplectes ardens =434	Ghana
	Euplectes franciscanus =435	Ghana
	Euplectes hordeaceus	Ghana
	Euplectes macrourus =436	Ghana
	Malimbus cassini	Ghana
	Malimbus malimbicus	Ghana
	Malimbus nitens	Ghana
	Malimbus rubricollis	Ghana
	Malimbus scutatus	Ghana
	Pachyphantes superciliosus =437	Ghana
	Passer griseus	Ghana
	Petronia dentata	Ghana
	Plocepasser superciliosus	Ghana
	Ploceus albinucha	Ghana
	Ploceus aurantius	Ghana
	Ploceus cucullatus =438	Ghana
	Ploceus heuglini	Ghana
	Ploceus luteolus =439	Ghana
	Ploceus melanocephalus =440	Ghana
	Ploceus nigerrimus	Ghana
	Ploceus nigricollis	Ghana
	Ploceus pelzelni	Ghana
	Ploceus preussi	Ghana
	Ploceus tricolor	Ghana
	Ploceus vitellinus	Ghana
	Quelea erythrops	Ghana
	Sporopipes frontalis	Ghana
	Vidua chalybeata =441	Ghana
	Vidua interjecta	Ghana
	Vidua larvaticola	Ghana
	Vidua macroura	Ghana
	Vidua orientalis =442	Ghana
	Vidua raricola	Ghana
	Vidua togoensis	Ghana
	Vidua wilsoni	Ghana
Sturnidae	*Gracula religiosa*	Thailand
REPTILIA		
TESTUDINATA		
Trionychidae	*Trionyx triunguis*	Ghana
Pelomedusidae	*Pelomedusa subrufa*	Ghana
	Pelusios adansonii	Ghana
	Pelusios castaneus	Ghana
	Pelusios gabonensis =443	Ghana
	Pelusios niger	Ghana

SERPENTES		
Colubridae	*Atretium schistosum*	India
	Cerberus rhynchops	India
	Xenochrophis piscator =444	India

APPENDIX IV

CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES OF WILD FAUNA AND FLORA

EXPORT PERMIT NO. _____

Exporting Country: Valid Until: (Date)

This permit is issued to: _____

address: _____

who declares that he is aware of the provisions of the Convention, for the purpose of exporting: _____ _____ (specimen(s), or part(s) or derivative(s) of specimen(s)) 1/

of a species listed in Appendix I)

Appendix II) -2/

Appendix III of the Convention as specified below.)

(bred in captivity or cultivated in _____) 2/

This (these) specimen(s) is (are) consigned to: _____

address: _____ country: _____

_____

at _____ on _____

_____
(signature of the applicant for the permit)

at _____ on _____

_____
(stamp and signature of the Management Authority issuing the export permit)

1/ Indicate the type of product

2/ Delete if not applicable

Description of the specimen(s) or part(s) or derivative(s) of specimen(s), including any mark(s) affixed:

Living Specimens

Species (scientific and common name)	Number	Sex	Size (or volume)	Mark (if any)

Parts or Derivatives

Species (Scientific and common name)	Quantity	Type of Goods	Mark (if any)

Stamps of the authorities inspecting:

(a) on exportation

(b) on importation *

* This stamp voids this permit for further trade purposes, and this permit shall be surrendered to the Management Authority.

* * *

Convention of March 3, 1973 on International Trade in Endangered Species of Wild Fauna and Flora

Procès-verbal of corrections made in the authentic texts of the Convention

I, the undersigned, Rudolf Bührer, chief, International Treaties Section, Federal Political Department,

Whereas:

The originals of the Convention on International Trade in Endangered Species of Wild Fauna and Flora, signed at Washington on March 3, 1973, deposited with the Swiss Government, proved to contain typographical errors;

The proposed corrections listed hereinafter, which were communicated to the Governments of the Signatory or Contracting States Party to the Convention by notification of the Federal Political Department dated September 8, 1975, met with no objections from the States concerned within the 90-day period stipulated;

The original French, English, and Spanish texts should be corrected as follows:

A. French Text of the Convention

Article IX(2)

The words "d'accession, d'approbation ou d'acceptation" in Article IX(2) have been deleted and replaced by the words "d'acceptation, d'approbation ou d'adhésion."

Article XI(7)

The word "qualifié" in the first line of Article XI(7) has been changed to the plural and is now written as "qualifiés."

Article XII(1)

The word "général" in line 2 of Article XII(1) has been deleted and replaced by the word "exécutif." Therefore, reference is now made to the "Directeur exécutif du Programme des Nations Unies pour l'Environnement."

Appendix I, Interpretation, paragraph 4:

The word "astérique" in paragraph 4 of the interpretation of Appendix I has been deleted and replaced by the word "astérisque."

Appendices I and II, Interpretations, paragraphs 4, 5, 6, and 7

The word "avant" in paragraphs 4, 5, 6, and 7 of the interpretations of Appendices I and II has been deleted and replaced by "après."

Appendix II

The species Cyanoramphus novaezelandiae (AVES: PSITTACIFORMES, Psittacidae) has been deleted from Appendix II.

Appendix IV

The word "(des)" in parentheses has been inserted after the word "du" in line 1, page 2, of Appendix IV.

The word "a" in the penultimate line of page 2 of Appendix IV has been deleted and replaced by the word "à."

Scientific names in Appendices I and II

The errors detected in the nomenclature of scientific names in Appendices I and II and the corresponding corrections are given in the following list.

B. English text of the convention

Article XIV, paragraph 1

A comma shall be inserted after the word "taking" in sub-paragraphs (a) and (b) of paragraph 1 of Article XIV.

Appendix II

The species Cyanoramphus novaezelandiae (AVES: PSITTACIFORMES, Psittacidae) shall be deleted in Appendix II.

Scientific names in Appendices I and II

The nomenclatural errors detected in the scientific names mentioned in Appendices I and II and the corrections are reported on the list hereafter.

C. Spanish Text of the Convention

Title of the Convention

The word "firmado" in the title of the Convention has been deleted and replaced by the word "firmada."

Article VII(1)

The word "aduanal" in the last line of Article VII(1) has been deleted and replaced by the word "aduanero."

Article VIII(5)

Supply an accent over the letter "i" of the word "Articulo" in line 2 of Article VIII(5), making the word "Artículo."

Article IX(2)

The word "las" has been inserted between the words "con" and "otras" in Article IX(2), making the sentence read "comunicarse con las otras partes y con la Secretaría."

Article XII(1)

The word "Ambiente" has been inserted after the word "Medio" in line 2 of Article XII(1). Hence the name of the agency now reads "Programa de las Naciones Unidas para el Medio Ambiente."

Article XII(2)

Supply an accent over the second letter "i" in the word "cientifica" in the last line of Article XII(2)(h), making the word read "científica."

Article XIV(2)

The word "posteridad" in line 5 of Article XIV(2) has been deleted and replaced by the word "posterioridad."

Appendix II

The species Cyanoramphus novaezelandiae (AVES: PSITTACIFORMES; Psittacidae) has been deleted from Appendix II.

Scientific names in Appendices I and II

The errors detected in the nomenclature of scientific names in Appendices I and II and the corresponding corrections are given in the following list.

APPENDIX I

	Errors	Corrections
		FAUNA
1	Pongo pygmaeus pygamaeus	Pongo pygmaeus pygmaeus
2	Castor fiber birulaia	Castor fiber birulai
3	Felie bengalensis bengalensis	Felis bengalensis bengalensis
4	Axis (Hyelaphus) kuhlii	Axis (Hyelaphus) kuhli
5	Blastoceros dichotomus	Blastocerus dichotomus
6	Lophura edwardsii	Lophura edwardsi
7	Amazona petrei petrei	Amazona pretrei pretrei
8	Dryocopus javensis richardsii	Dryocopus javensis richardsi
9	Andrias (= Megalobatrachus) davidianus japonicus	Andrias (=Megalobatrachus) japonicus
10	Andrias (= Megalobatrachus) davidianus davidianus	Andrias (= Megalobatrachus) davidianus
11	Gelclemmys (= Damonia) hamiltonii	Geoclemys (= Damonia) hamiltonii
12	LACERTILIA	SAURIA

FLORA

13	Alocasia sanderiana	Alocasia sanderana
14	Ammopiptanthus mongolicum	Ammopiptanthus mongolicus
15	MELIACEAE Tachigalia versicolor	LEGUMINOSAE Tachigalia versicolor
16	Batocarpus costaricense	Batocarpus costaricensis
17	Cattleya jongheana	Laelia jongheana
18	Abies guatamalensis	Abies guatemalensis
19	TAXACEAE Fitzroya cupressoides	CUPRESSACEAE Fitzroya cupressoides

APPENDIX II

Errors		Corrections
	FAUNA	
20	Viveridae	Viverridae
21	Orycteropidae	Orycteropodidae
22	Ithaginus cruentus	Ithaginis cruentus
23	COLUMBIFORNES	COLUMBIFORMES
24	Tanygnathus luzoniensis	Tanygnathus lucionensis
25	Turaco corythaix	Tauraco corythaix
26	Ambystoma dumerillii	Ambystoma dumerilii
27	Crodocylus johnsoni	Crocodylus johnsoni
28	Dermochelidae	Dermochelyidae
29	LACERTILIA	SAURIA
30	Cololophus subcristatus	Conolophus subcristatus
	FLORA	
31	Panax quinquefolium	Panax quinquefolius
32	Cyathea (Hemitella) capensis	Cyathea (Hemitelia) capensis

33	Cyathea dredgei	Cyathea dregei
34	Arenga ipot	Areca ipot
35	Solanum sylvestris	Solanum sylvestre

Have caused the corresponding corrections to be made in the originals of the Convention.

In witness whereof, I have signed this procès-verbal at Bern on March 10, 1976.

[SEAL] R. Bührer

Amendment to the Convention on International Trade in Endangered Species of Wild Fauna and Flora, Bonn, 1979

Done at Bonn 22 June 1979

Entered into force 13 April 1987

Primary source citation: TIAS 11079

CONVENTION ON INTERNATIONAL TRADE IN
ENDANGERED SPECIES OF WILD FAUNA AND FLORA
SECRETARIAT
IUCN CH-1110 MORGES, SWITZERLAND ✆ (021)71 06 96 CABLES: UNICORN MORGES

Bonn, 22 June 1979

AMENDMENT

In accordance with Article XVII of the Convention on International Trade in Endangered Species of Wild Fauna and Flora, signed in Washington, D.C. on 3 March 1973, an extraordinary meeting of the Conference of the Parties was convened in Bonn (Federal Republic of Germany) on 22 June 1979.

The following Parties were represented: Botswana, Canada, Chile, Costa Rica, Denmark, Ecuador, Egypt, Finland, France, Germany (Federal Republic of), India, Kenya, Nigeria, Norway, Panama, Senegal, South Africa, Sweden, Switzerland, United Kingdom of Great Britain and Northern Ireland, United States of America, Union of Soviet Socialist Republics and Zaire.

By the requisite two-thirds majority of Parties present and voting, the meeting adopted the following amendment to the Convention:

At the end of Article XI, paragraph 3, sub-paragraph (a), the words ", and adopt financial provisions" shall be added.

Peter H. Sand [Seal]
Secretary General

Amendment to the Convention on International Trade in Endangered Species of Wild Fauna and Flora, Gaborone, 1983

Done at Gaborone 30 April 1983

Not in force

Primary source citation: Senate Treaty Document 98-10, 98th Congress, 1st Session, U.S. Government Printing Office, Washington, 1983

CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES OF WILD FAUNA AND FLORA

SECRETARIAT,
Gland, Switzerland.

AMENDMENT

In accordance with Article XVII of the Convention on International Trade in Endangered Species of Wild Fauna and Flora, signed in Washington, D.C. on 3 March 1973, an extraordinary meeting of the Conference of the Parties was convened in Gaborone (Botswana), on 30 April 1983.

The following Parties were represented: Argentina, Australia, Austria, Bolivia, Botswana, Brazil, Canada, Chile, China, Denmark, Finland, France, Gambia, Federal Republic of Germany, Guyana, India, Indonesia, Israel, Italy, Japan, Kenya, Liberia, Madagascar, Malawi, Malaysia, Mozambique, Nepal, Norway, Pakistan, Papua New Guinea, Peru, Portugal, Rwanda, St. Lucia, Senegal, Seychelles, South Africa, Sri Lanka, Sweden, Switzerland, Thailand, Togo, Union of Soviet Socialist Republics, United Kingdom of Great Britain and Northern Ireland, United Republic of Cameroon, United States of America, Uruguay and Zambia.

By the requisite two-thirds majority of Parties present and voting, the meeting adopted an amendment to Article XXI of the Convention, which adds, after the words "Depositary Government.", the following 5 paragraphs:

"1. This Convention shall be open for accession by regional economic integration organizations constituted by sovereign States which have competence in respect of the negotiation, conclusion and implementation of international agreements in matters transferred to them by their Member States and covered by this Convention.

2. In their instruments of accession, such organizations shall declare the extent of their competence with respect to the matters governed by the Convention. These organizations shall also inform the Depositary Government of any substantial modification in the extent of their competence. Notifications by regional economic integration

organizations concerning their competence with respect to matters governed by this Convention and modifications thereto shall be distributed to the Parties by the Depositary Government.

3. In matters within their competence, such regional economic integration organizations shall exercise the rights and fulfill the obligations which this Convention attributes to their Member States, which are Parties to the Convention. In such cases the Member States of the organizations shall not be entitled to exercise such rights individually.

4. In the fields of their competence, regional economic integration organizations shall exercise their right to vote with a number of votes equal to the number of their Member States which are Parties to the Convention. Such organizations shall not exercise their right to vote if their Member States exercise theirs, and vice versa.

5. Any reference to "Party" in the sense used in Article 1(h) of this Convention to "State"/"States" or to "State Party"/"States Parties" to the Convention shall be construed as including a reference to any regional economic integration organization having competence in respect of the negotiation, conclusion and application of international agreements in matters covered by this Convention."

Gland, 17 May 1983.

EUGENE LAPOINTE,
Secretary General.

Convention on the Protection of the Environment Between Denmark, Finland, Norway and Sweden, Stockholm, 1974

Done at Stockholm 19 February 1974

*Entered into force 5 October 1976**

Depositary: Sweden

Primary source citation: 13 ILM 591 (1974)

CONVENTION ON THE PROTECTION OF THE ENVIRONMENT BETWEEN DENMARK, FINLAND, NORWAY AND SWEDEN

THE GOVERNMENTS of Denmark, Finland, Norway and Sweden, CONVINCED of the urgent need to protect and improve the environment, HAVE AGREED as follows:

Article 1

For the purpose of this Convention, environmentally harmful activities shall mean the discharge from the soil or from buildings or installations of solid or liquid waste, gas or any other substance into watercourses, lakes or the sea and the use of land, the seabed, buildings or installations in any other way which entails, or may entail environmental nuisance by water pollution or any other effect on water conditions, sand drift, air pollution, noise, vibration, changes in temperature, ionizing radiation, light etc.

The Convention shall not apply insofar as environmentally harmful activities are regulated by a special agreement between two or more of the Contracting States.

Article 2

In considering the permissibility of environmentally harmful activities, the nuisance which such activities entail or may entail in another Contracting State shall be equated with a nuisance in the State where the activities are carried out.

* This Convention is not in force for the United States.

Article 3

Any person who is affected or may be affected by a nuisance caused by environmentally harmful activities in another Contracting State shall have the right to bring before the appropriate Court or Administrative Authority of that State the question of the permissibility of such activities, including the question of measures to prevent damage, and to appeal against the decision of the Court or the Administrative Authority to the same extent and on the same terms as a legal entity of the State in which the activities are being carried out.

The provisions of the first paragraph of this Article shall be equally applicable in the case of proceedings concerning compensation for damage caused by environmentally harmful activities. The question of compensation shall not be judged by rules which are less favourable to the injured party than the rules of compensation of the State in which the activities are being carried out.

Article 4

Each State shall appoint a special authority (supervisory authority) to be entrusted with the task of safeguarding general environmental interests insofar as regards nuisances arising out of environmentally harmful activities in another Contracting State. For the purpose of safeguarding such interests, the supervisory authority shall have the right to institute proceedings before or be heard by the competent Court or Administrative Authority of another Contracting State regarding the permissibility of the environmentally harmful activities, if an authority or other representative of general environmental interests in that State can institute proceedings or be heard in matters of this kind, as well as the right to appeal against the decision of the Court or the Administrative Authority in accordance with the procedures and rules of appeal applicable to such cases in the State concerned.

Article 5

If the Court or the Administrative Authority examining the permissibility of environmentally harmful activities (examining authority) finds that the activities entail or may entail nuisance of significance in another Contracting State, the examining authority shall, if proclamation or publication is required in cases of that nature, send as soon as possible a copy of the documents of the case to the supervisory authority of the other State, and afford it the opportunity of giving its opinion. Notification of the date and place of a meeting or inspection shall, where appropriate, be given well in advance to the supervisory authority which, moreover, shall be kept informed of any developments that may be of interest to it.

Article 6

Upon the request of the supervisory authority, the examining authority shall, insofar as compatible with the procedural rules of the State in which the activities are being carried out require the applicant for a permit to carry out environmentally harmful activities to submit such additional particulars, drawings and technical specifications as the examining authority deems necessary of revaluating the effects in the other State.

Article 7

The supervisory authority, if it finds it necessary on account of public or private interests, shall publish communications from the examining authority in the local newspaper or in some other suitable manner. The supervisory authority shall also institute such investigations of the effects in its own State as it deems necessary.

Article 8

Each State shall defray the cost of the activities of its supervisory authority.

Article 9

If, in a particular case, the supervisory authority has informed the appropriate Court or Administrative Authority of the State in which the activities are being carried out that in the case concerned the duties of the supervisory authority shall be discharged by another authority, the provisions of this Convention relating to supervisory activities shall, where appropriate, apply to that authority.

Article 10

If necessary for determining the damage caused in another State by environmentally harmful activities, the supervisory authority of that other State shall upon request of the examining authority of the State in which the activities are being carried out make arrangements for on-site inspection. The examining authority or an expert appointed by it may be present at such an inspection.

Where necessary, more detailed instructions concerning inspections such as referred to in the preceding paragraph shall be drawn up in consultation between the countries concerned.

Article 11

Where the permissiblity of environmentally harmful activities which entail or may entail considerable nuisance in another Contracting State is being examined by the Government or by the appropriate Minister or Ministry of the State in which the activities are being carried out, consultations shall take place between the States concerned if the Government of the former State so requests.

Article 12

In cases such as those referred to in Article 11, the Government of each State concerned may demand that an opinion be given by a Commission which, unless otherwise agreed, shall consist of a chairman from another Contracting State to be appointed jointly by the parties and three members from each of the States concerned. Where such a Commission has been appointed, the case cannot be decided upon until the Commission has given its opinion.

Each State shall remunerate the members it has appointed. Fees or other remuneration of the Chairman as well as any other costs incidental to the activities of the Commission which are not manifestly the responsibility of one or the other State, shall be equally shared by the States concerned.

Article 13

This Convention shall also apply to the continental shelf areas of the Contracting States.

Article 14

This Convention shall enter into force six months from the date on which all the Contracting States have notified the Swedish Ministry for Foreign Affairs that the constitutional measures necessary for the entry into force of the Convention have been implemented. The Swedish Ministry for Foreign Affairs shall notify the other Contracting States of the receipt of such communications.

Article 15

Actions or cases relevant to this Convention, which are pending before a Court or an Administrative Authority on the date when this Convention enters into force, shall be dealt with and judged according to provisions previously in force.

Article 16

Any Contracting State wishing to denounce this Convention shall give notice of its intention in writing to the Swedish Government, which shall forthwith inform the other Contracting States of the denunciation and of the date on which notice was received.

The denunciation shall take effect twelve months from the date on which the Swedish Government received such notification or on such later date as may be indicated in the notice of denunciation.

This Convention shall be deposited with the Swedish Ministry for Foreign Affairs, which shall send certified copies thereof to the Government of each Contracting State.

In witness whereof the undersigned, representatives of the Contracting States, being duly authorized thereto by their respective Governments, have signed this Convention.

DONE at Stockholm, this 19th day of February 1974 in a single copy in the Danish, Finnish, Norwegian and Swedish languages, all texts being equally authoritative.

Protocol

In connection with the signing today of the Nordic Environmental Protection Convention the duly authorized signatory agreed that the following comments on its application shall be appended to the Convention.

In the application of Article 1 discharge from the soil, or from buildings or installations of solid or liquid waste gases or other substances into watercourses, lakes or the sea shall be regarded as environmentally harmful activities only if the discharge entails or may entail a nuisance to the surroundings.

The right established in Article 3 for anyone who suffers injury as result of environmentally harmful activities in a neighbouring State to institute proceedings for compensation before a court or administrative authority of that State shall, in principle, be regarded as including the right to demand the purchase of his real property.

Article 5 shall be regarded as applying also to applications for permits where such applications are referred to certain authorities and organizations for their opinion but not in conjunction with proclamation or publication procedures.

The Contracting States shall require officials of the supervisory authority to observe professional secrecy as regard trade secrets, operational devices or business conditions of which they have become cognizant in dealing with cases concerning environmentally harmful activities in another State.

Stockholm, 19th February, 1974.

Convention on the Conservation of Migratory Species of Wild Animals, Bonn, 1979

Done at Bonn 23 June 1979

*Entered into force 11 January 1983**

Depositary: Germany

Primary source citation: 19 ILM 15 (1980)

CONVENTION ON THE CONSERVATION OF MIGRATORY SPECIES OF WILD ANIMALS

THE CONTRACTING PARTIES,

RECOGNIZING that wild animals in their magnificent variety are an irreplaceable part of the earth's natural system which must be conserved for the good of mankind;

AWARE that each generation of man holds the resources of the earth for future generations and has an obligation to ensure that this legacy is conserved and, where utilized, is used wisely;

CONSCIOUS of the ever-growing value of wild animals from environmental, ecological, genetic, scientific, aesthetic, recreational, cultural, educational, social and economic points of view;

CONCERNED particularly with those species of wild animals that migrate across or outside national jurisdictional boundaries;

RECOGNIZING that the States of the world must be the custodians and trustees of the migratory species of wild animals that live within or pass through their national jurisdictional boundaries;

CONVINCED that conservation and effective management of migratory species of wild animals require the concerted action of all States within the range of each migratory species through which such species spend any part of their life cycle;

RECALLING Recommendation 32 of the Action Plan adopted by the United Nations Conference on the Human Environment (Stockholm, 1972) and noting with satisfaction that the Twenty-seventh Session of the General Assembly of the United Nations;

HAVE AGREED as follows:

* This Convention is not in force for the United States. Two agreements concluded under the auspices of this Convention can be found elsewhere in this document: the 1990 Agreement on the Conservation of Seals in the Wadden Sea, at Volume II, page 1607, and the 1992 Agreement on the Conservation of Small Cetaceans in the Baltic and North Seas, at Volume II, page 1612.

ARTICLE I
Interpretation

1. For the purpose of this Convention:

   a) "Migratory species" means the entire population or any geographically separate part of the population of any species or lower taxon of wild animals, a significant proportion of whose members cyclically and predictably, cross one or more national jurisdictional boundaries;

   b) "Conservation status of a migratory species" means the sum of the influences acting on the migratory species that may affect its long-term distribution and abundance;

   c) "Conservation status" will be taken as "favourable" when:

      (1) Population dynamics data indicate that the migratory species is maintaining itself on a long-term basis as a viable component of its ecosystems;

      (2) the range of the migratory species is neither currently being reduced, nor is likely to be reduced, on a long-term basis;

      (3) there is, and will be in the foreseeable future, sufficient habitat to maintain the population of the migratory species on a long-term basis; and

      (4) the distribution and abundance of the migratory species approach historic coverage and levels to the extent that potentially suitable ecosystems exist and to the extent consistent with wise wildlife management;

   d) "Conservation status" will be taken as "unfavourable" if any of the conditions set out in sub-paragraph (c) of this paragraph is not met;

   e) "Endangered" in relation to a particular migratory species means that the migratory species is in danger of extinction throughout all or a significant portion of its range;

   f) "Range" means all the areas of land or water that a migratory species inhabits, stays in temporarily, crosses or overflies at any time on its normal migration route;

   g) "Habitat" means any area in the range of a migratory species which contains suitable living conditions for that species;

   h) "Range State" in relation to a particular migratory species means any State (and where appropriate any other Party referred to under sub-paragraph (k) of this paragraph) that exercises jurisdiction over any part of the range of that migratory species, or a State, flag vessels of which are engaged outside national jurisdictional limits in taking that migratory species;

   i) "Taking" means taking, hunting, fishing, capturing, harassing, deliberate killing, or attempting to engage in any such conduct;

   j) "AGREEMENT" means an international agreement relating to the conservation of one or more migratory species as provided for in Articles IV and V of this Convention; and

   k) "Party" means a State or any regional economic integration organization constituted by sovereign States which has competence in respect of the negotiation, conclusion and application of international agreements in matters covered by this Convention for which this Convention is in force.

2. In matters within their competence, the regional economic integration organizations which are Parties to this Convention shall in their own name exercise the rights and fulfil the responsibilities which this Convention attributes to their member States. In such cases the member States of these organizations shall not be entitled to exercise such rights individually.

3. Where this Convention provides for a decision to be taken by either a two-thirds majority or a unanimous decision of "the Parties present and voting" this shall mean "the parties present and casting an affirmative or negative vote". Those abstaining from voting shall not be counted amongst "the Parties present and voting" in determining the majority.

ARTICLE II
Fundamental Principles

1. The Parties acknowledge the importance of migratory species being conserved and of Range States agreeing to take action to this end whenever possible and appropriate, paying special attention to migratory species the conservation status of which is unfavourable, and taking individually or in co-operation appropriate and necessary steps to conserve such species and their habitat.

2. The Parties acknowledge the need to take action to avoid any migratory species becoming endangered.

3. In particular, the Parties:

   a) should promote, co-operate in our support research relating to migratory species;

   b) shall endeavour to provide immediate protection for migratory species included in Appendix I; and

   c) shall endeavour to conclude AGREEMENTS covering the conservation and management of migratory species included in Appendix II.

ARTICLE III
Endangered Migratory Species: Appendix I

1. Appendix I shall list migratory species which are endangered.

2. A migratory species may be listed in Appendix I provided that reliable evidence, including the best scientific evidence available, indicates that the species is endangered.

3. A migratory species may be removed from Appendix I when the Conference of the Parties determines that:

   a) reliable evidence, including the best scientific evidence available, indicates that the species is no longer endangered, and

   b) the species is not likely to become endangered again because of loss of protection due to its removal from Appendix I.

4. Parties that are Range States of a migratory species listed in Appendix I shall endeavour:

   a) to conserve and, where feasible and appropriate, restore those habitats of the species which are of importance in removing the species from danger of extinction;

   b) to prevent, remove, compensate for or minimize, as appropriate, the adverse effects of activities or obstacles that seriously impede or prevent the migration of the species; and

   c) to the extent feasible and appropriate, to prevent, reduce or control factors that are endangering or are likely to further endanger the species, including strictly controlling the introduction of, or controlling or eliminating already introduced, exotic species.

5. Parties that are Range States of a migratory species listed in Appendix I shall prohibit the taking of animals belonging to such species. Exceptions may be made to this prohibition only if:

a) the taking is for scientific purposes;

b) the taking is for the purpose of enhancing the propagation or survival of the affected species;

c) the taking is to accommodate the needs of traditional subsistence users of such species; or

d) extraordinary circumstances so require:

provided that such exceptions are precise as to content and limited in space and time. Such taking should note operate to the disadvantage of the species.

6. The Conference of the Parties may recommend to the Parties that are Range States of a migratory species listed in Appendix I that they take further measures considered appropriate to benefit the species.

7. The Parties shall as soon as possible inform the Secretariat of any exceptions made pursuant to paragraph 5 of this Article.

ARTICLE IV
Migratory Species to be the Subject of AGREEMENTS: Appendix II

1. Appendix II shall list migratory species which have an unfavourable conservation status and which require international agreements for their conservation and management, as well as those which have a conservation status which would significantly benefit from the international co-operation that could be achieved by an international agreement.

2. If the circumstances so warrant, a migratory species may be listed both in Appendix I and Appendix II.

3. Parties that are Range States of migratory species listed in Appendix II shall endeavour to conclude AGREEMENTS where these would benefit the species and should give priority to those species in an unfavourable conservation status.

4. Parties are encouraged to take action with a view to concluding agreements for any population or any geographically separate part of the population of any species or lower taxon of wild animals, members of which periodically cross one or more national jurisdictional boundaries.

5. The Secretariat shall be provided with a copy of each AGREEMENT concluded pursuant to the provision of this Article.

ARTICLE V
Guidelines for AGREEMENTS

1. The object of each AGREEMENT shall be to restore the migratory species concerned to a favourable conservation status or to maintain it in such a status. Each AGREEMENT should deal with those aspects of the conservation and management of the migratory species concerned which serve to achieve that object.

2. Each AGREEMENT should cover the whole of the range of the migratory species concerned and should be open to accession by all Range States of that species, whether or not they are parties to this Convention.

3. An AGREEMENT should, wherever possible, deal with more than one migratory species.

4. Each AGREEMENT should:

a) identify the migratory species covered;

b) describe the range and migration route of the migratory species;

c) provide for each Party to designate its national authority concerned with the implementation of the AGREEMENT;

d) establish, if necessary, appropriate machinery to assist in carrying out the aims of the AGREEMENT, to monitor its effectiveness, and to prepare reports for the Conference of the Parties;

e) provide for procedures for the settlement of disputes between Parties to the AGREEMENT; and

f) at a minimum, prohibit, in relation to a migratory species of the Order Cetacea, any taking that is not permitted for that migratory species under any other multilateral agreement and provide for accession to the AGREEMENT by States that are not Range States of that migratory species.

5. Where appropriate and feasible, each AGREEMENT should provide for, but not be limited to:

a) periodic review of the conservation status of the migratory species concerned and the identification of the factors which may be harmful to that status;

b) co-ordinated conservation and management plans;

c) research into the ecology and population dynamics of the migratory species concerned, with special regard to migration;

d) the exchange of information on the migratory species concerned, special regard being paid to the exchange of the results of research and of relevant statistics;

e) conservation and, where required and feasible, restoration of the habitats of importance in maintaining a favourable conservation status, and protection of such habitats from disturbances, including strict control of the introduction of, or control of already introduced, exotic species detrimental to the migratory species;

f) maintenance of a network of suitable habitats appropriately disposed in relation to the migration routes;

g) where it appears desirable, the provision of new habitats favourable to the migratory species or reintroduction of the migratory species into favourable habitats;

h) elimination of, to the maximum extent possible, or compensation for activities and obstacles which hinder or impede migration;

i) prevention, reduction or control of the release into the habitat of the migratory species of substances harmful to that migratory species;

j) measures based on sound ecological principles to control and manage the taking of the migratory species;

k) procedures for co-ordinating action to suppress illegal taking;

l) exchange of information on substantial threats to the migratory species;

m) emergency procedures whereby conservation action would be considerably and rapidly strengthened when the conservation status of the migratory species is seriously affected; and

n) making the general public aware of the contents and aims of the AGREEMENT.

ARTICLE VI
Range States

1. A list of the Range States of migratory species listed in Appendices I and II shall be kept up to date by the Secretariat using information it has received from the Parties.

2. The Parties shall keep the Secretariat informed as to which of the migratory species listed in Appendices I and II they consider they are Range States, including provision of information on their flag vessels engaged outside national jurisdictional limits in taking the migratory species concerned and where possible future plans in respect of such taking.

3. The Parties which are Range States for migratory species listed in Appendix I or Appendix II should inform the Conference of the Parties through the Secretariat, at least six months prior to each ordinary meeting of the Conference, on measures that they are taking to implement the provisions of this Convention for these species.

ARTICLE VII
The Conference of the Parties

1. The Conference of the Parties shall be the decision-making organ of this Convention.

2. The Secretariat shall call a meeting of the Conference of the Parties not later than two years after the entry into force of this Convention.

3. Thereafter the Secretariat shall convene ordinary meetings of the Conference of the Parties at intervals of not more than three years, unless the Conference decides otherwise, and extraordinary meetings at any time on the written request of at least one-third of the Parties.

4. The Conference of the Parties shall establish and keep under review the financial regulations of this Convention. The Conference of the Parties shall, at each of its ordinary meetings, adopt the budget for the next financial period. Each Party shall contribute to this budget according to a scale to be agreed upon by the Conference. Financial regulations, including the provisions on the budget and the scale of contributions as well as their modifications, shall be adopted by unanimous vote of the Parties present and voting.

5. At each of its meetings the Conference of the Parties shall review the implementation of this Convention and may in particular:

   a) review and assess the conservation status of migratory species;

   b) review the progress made toward the conservation of migratory species, especially those listed in Appendices I and II;

   c) make such provision and provide such guidance as may be necessary to enable the Scientific Council and the Secretariat to carry out their duties;

   d) receive and consider any reports presented by the Scientific Council, the Secretariat, any Party or any standing body established pursuant to an AGREEMENT;

   e) make recommendations to the parties for improving the conservation status of migratory species and review the progress being made under AGREEMENTS;

   f) in those cases where an AGREEMENT has not been concluded, make recommendations for the convening of meetings of the Parties that are Range States of a migratory species or group of migratory species to discuss measures to improve the conservation status of the species;

g) make recommendations to the Parties for improving the effectiveness of this Convention; and

h) decide on any additional measure that should be taken to implement the objects of this Convention.

6. Each meeting of the Conference of the Parties should determine the time and venue of the next meeting.

7. Any meeting of the Conference of the Parties shall determine and adopt rules of procedure for that meeting. Decisions at a meeting of the Conference of the Parties shall require a two-thirds majority of the Parties present and voting, except where otherwise provided for by this Convention.

8. The United Nations, its Specialized Agencies, the International Atomic Energy Agency, as well is any State not a party to this Convention and, for each AGREEMENT, the body designated by the Parties to that AGREEMENT may be represented by observers at meetings of the Conference of the Parties.

9. Any agency or body technically qualified in protection, conservation and management of migratory species, in the following categories, which has informed the Secretariat of its desire to be represented at meetings of the Conference of the Parties by observers, shall be admitted unless at least one-third of the Parties present object:

a) international agencies or bodies, either governmental or non-governmental, and national governmental agencies and bodies; and

b) national non-governmental agencies or bodies which have been approved for this purpose by the State in which they are located.

Once admitted, these observers shall have the right to participate but not to vote.

ARTICLE VIII
The Scientific Council

1. At its first meeting, the Conference of the Parties shall establish a Scientific Council to provide advice on scientific matters.

2. Any Party may appoint a qualified expert as a member of the Scientific Council. In addition, the Scientific Council shall include as members qualified experts selected and appointed by the Conference of the Parties; the number of these experts, the criteria for their selection and the terms of their appointments shall be as determined by the Conference of the Parties.

3. The Scientific Council shall meet at the request of the Secretariat as required by the Conference of the Parties.

4. Subject to the approval of the Conference of the Parties, the Scientific Council shall establish its own rules of procedure.

5. The Conference of the Parties shall determine the functions of the Scientific Council, which may include:

a) providing scientific advice to the Conference of the Parties, to the Secretariat, and, if approved by the Conference of the Parties, to any body set up under this Convention or an AGREEMENT or to any Party;

b) recommending research and the co-ordination of research on migratory species, evaluating the results of such research in order to ascertain the conservation status of migratory species and reporting to the Conference of the Parties on such status and measures for its improvement;

c) making recommendations to the Conference of the Parties as to the migratory species to be included in Appendices I or II, together with an indication of the range of such migratory species;

d) making recommendations to the Conference of the Parties as to specific conservation and management measures to be included in AGREEMENTS on migratory species; and

e) recommending to the Conference of the Parties solutions to problems relating to the scientific aspects of the implementation of this Convention, in particular with regard to the habitats of migratory species.

ARTICLE IX
The Secretariat

1. For the purposes of this Convention a Secretariat shall be established.

2. Upon entry into force of this Convention, the Secretariat is provided by the Executive Director of the United Nations Environment Programme. To the extent and in the manner he considers appropriate, he may be assisted by suitable inter-governmental or non-governmental, international or national agencies and bodies technically qualified in protection, conservation and management of wild animals.

3. If the United Nations Environment Programme is no longer able to provide the Secretariat, the Conference of the Parties shall make alternative arrangements for the Secretariat.

4. The functions of the Secretariat shall be:

   a) to arrange for and service meetings:

      i) of the Conference of the Parties, and

      ii) the Scientific Council;

   b) to maintain liaison with and promote liaison between the Parties, the standing bodies set up under AGREEMENTS and other international organizations concerned with migratory species;

   c) to obtain from any appropriate source reports and other information which will further the objects and implementation of this Convention and to arrange for the appropriate dissemination of such information;

   d) to invite the attention of the Conference of the Parties to any matter pertaining to the objectives of this Convention;

   e) to prepare for the Conference of the Parties reports on the work of the Secretariat and on the implementation of this Convention;

   f) to maintain and publish a list of Range States of all migratory species included in Appendices I and II;

   g) to promote, under the direction of the Conference of the Parties, the conclusion of AGREEMENTS;

   h) to maintain and make available to the Parties a list of AGREEMENTS and, if so required by the Conference of the Parties, to provide any information on such AGREEMENTS;

   i) to maintain and publish a list of the recommendations made by the Conference of the Parties pursuant to sub-paragraphs (e), (f) and (g) of paragraph 5 of Article VII or of decisions made pursuant to sub-paragraph (h) of that paragraph;

   j) to provide for the general public information concerning this Convention and its objectives; and

   k) to perform any other function entrusted to it under this Convention or by the Conference of the Parties.

ARTICLE X
Amendment of the Convention

1. This Convention may be amended at any ordinary or extraordinary meeting of the Conference of the Parties.

2. Proposals for amendment may be made by any Party.

3. The text of any proposed amendment and the reasons for it shall be communicated to the Secretariat at least one hundred and fifty days before the meeting at which it is to be considered and shall promptly be communicated by the Secretariat to all Parties. Any comments on the text by the Parties shall be communicated to the Secretariat not less than sixty days before the meeting begins. The Secretariat shall, immediately after the last day for submission of comments, communicate to the Parties all comments submitted by that day.

4. Amendments shall be adopted by a two-third majority of Parties present and voting.

5. An amendment adopted shall enter into force for all Parties which have accepted it on the first day of the third month following the date on which two-thirds of the Parties have deposited an instrument of acceptance with the Depositary. For each Party which deposits an instrument of acceptance after the date on which two-thirds of the Parties have deposited an instrument on acceptance, the amendment shall enter into force for that Party on the first day of the third month following the deposit of its instrument of acceptance.

ARTICLE XI
Amendment of the Appendices

1. Appendices I and II may be amended at any ordinary or extraordinary meeting of the Conference of the Parties.

2. Proposals for amendment may be made by any Party.

3. The text of any proposed amendment and the reasons for it, based on the best scientific evidence available, shall be communicated to the Secretariat at least one hundred and fifty days before the meeting and shall promptly be communicated by the Secretariat to all Parties. Any comments on the text by the Parties shall be communicated to the Secretariat not less than sixty days before the meeting begins. The Secretariat shall, immediately after the last day for submission of comments, communicate to the Parties all comments submitted by that day.

4. Amendment shall be adopted by a two-thirds majority of Parties present and voting.

5. An amendment to the Appendices shall enter into force for all Parties ninety days after the meeting of the Conference of the Parties at which it was adopted, except for those Parties which make a reservation in accordance with Paragraph 6 of this Article.

6. During the period of ninety days provided for in paragraph 5 of this Article, any Party may by notification in writing to the Depositary make a reservation with respect to the amendment. A reservation to an amendment may be withdrawn by a written notification to the Depositary and thereupon the amendment shall enter into force for that Party ninety days after the reservation is withdrawn.

ARTICLE XII
Effect on International Conventions and Other Legislation

1. Nothing in this Convention shall prejudice the codification and development of the law of the sea by the United Nations Conference on the Law of the Sea convened pursuant to Resolution 2750 C (XXV) of the General Assembly of the United Nations nor the present or future claims and legal views of any State concerning the law of the sea and the nature and extent of coastal and flag State jurisdiction.

2. The provisions of this Convention shall in no way affect the rights or obligations of any Party deriving from any existing treaty, convention or agreement.

3. The provisions of this Convention shall in no way affect the right of Parties to adopt stricter domestic measures concerning the conservation of migratory species listed in Appendices I and II or to adopt domestic measures concerning the conservation of species not listed in Appendices I and II.

ARTICLE XIII
Settlement of Disputes

1. Any dispute which may arise between two or more Parties with respect to the interpretation or application of the provisions of this Convention shall be subject to negotiation between the Parties involved in the dispute.

2. If the dispute cannot be resolved in accordance with paragraph 1 of this Article, the Parties may, by mutual consent, submit the dispute to arbitration, in particular that of the Permanent Court of Arbitration at The Hague, and the Parties submitting the dispute shall be bound by the arbitral decision.

ARTICLE XIV
Reservations

1. The provisions of this Convention shall not be subject to general reservations. Specific reservations may be entered in accordance with the provisions of this Article and Article XI.

2. Any State or any regional economic integration organization may, on depositing its instrument of ratification, acceptance, approval or accession, enter a specific reservation with regard to the presence on either Appendix I or Appendix II or both, of any migratory species and shall then not be regarded as a Party in regard to the subject of that reservation until ninety days after the Depositary has transmitted to the Parties notification that such reservation has been withdrawn.

ARTICLE XV
Signature

This Convention shall be open for signature at Bonn for all States and any regional economic integration organization until the twenty-second day of June, 1980.

ARTICLE XVI
Ratification, Acceptance, Approval

This Convention shall be subject to ratification, acceptance or approval. Instruments of ratification, acceptance or approval shall be deposited with the Government of the Federal Republic of Germany, which shall be the Depositary.

ARTICLE XVII
Accession

After the twenty-second day of June 1980 this Convention shall be open for accession by all non-signatory States and any regional economic integration organization. Instruments of accession shall be deposited with the Depositary.

ARTICLE XVIII
Entry into Force

1. This Convention shall enter into force on the first day of the third month following the date of deposit of the fifteenth instrument of ratification, acceptance, approval or accession with the Depositary.

2. For each State or each regional economic integration organization which ratifies, accepts or approves this Convention or accedes thereto after the fifteenth instrument of ratification, acceptance, approval or accession, this Convention shall enter into force on the first day of the third month following the deposit by such State or such organization of its instrument of ratification, acceptance, approval or accession.

ARTICLE XIX
Denunciation

Any Party may denounce this Convention by written notification to the Depositary at any time. The denunciation shall take effect twelve months after the Depositary has received the notification.

ARTICLE XX
Depositary

1. The original of this Convention, in the English, French, German, Russian and Spanish languages, each version being equally authentic, shall be deposited with the Depositary. The Depositary shall transmit certified copies of each of these versions to all States and all regional economic integration organizations that have signed the Convention or deposited instruments of accession to it.

2. The Depositary shall, after consultation with the Governments concerned, prepare official versions of the text of this Convention in the Arabic and Chinese languages.

3. The Depositary shall inform all signatory and acceding States and all signatory and acceding regional economic integration organizations and the Secretariat of signatures, deposit of instruments of ratification, acceptance, approval or accession, entry into force of this Convention, amendments thereto, specific reservations and notifications of denunciation.

4. As soon as this Convention enters into force, a certified copy thereof shall be transmitted by the Depositary to the Secretariat of the United Nations for registration and publication in accordance with Article 102 of the Charter of the United Nations.

IN WITNESS WHEREOF the undersigned, being duly authorized to that effect, have signed this Convention.

DONE at Bonn on 23 June 1979

APPENDIX I
Interpretation

1. Migratory species included in this Appendix are referred to:

   a) by the name of the species or subspecies; or

   b) as being all of the migratory species included in a higher taxon or designated part thereof.

2. Other references to taxa higher than species are for the purposes of information or classification only.

3. The abbreviation "(s.l.)" is used to denote that the scientific name is used in its extended meaning.

4. The symbol (-) followed by a number placed against the name of a taxon indicates the exclusion from that taxon of designated geographically separate populations as follows:

   -101 Peruvian populations.

5. The symbol (+) followed by a number placed against the name of a species denotes that only designated geographically separate populations of that species are included in this Appendix, as follows:

   +201 Northwest African populations
   +202 African populations
   +203 Upper Amazon populations.

6. An asterisk (*) placed against the name of a species indicates that the species or a separate population of that species or a higher taxon which includes that species, is included in Appendix II.

MAMMALIA

Chiroptera	
Molossidae	Tadarida brasiliensis
Primates	
Pongidae	Gorilla gorilla beringei
Cetacea	
Balaenopteridae	Balaenoptera musculus
	Megaptera novaeangliae
Balaenidae	Balaena mysticetus
	Eubalaena glacialis (s.l.)
Pinnipedia	
Phocidae	Monachus monachus*
Perissodactyla	
Equidae	Equus grevyi
Artiodactyla	
Camelidae	Vicugna vicugna* -101
Cervidae	Cervus elaphus barbarus
Bovidae	Bos sauveli
	Addax nasomaculatus
	Gazella cuvieri
	Gazella dama
	Gazella dorcas + 201

AVES

Procellariiformes	
Diomedeidae	Diomedea albatrus
Procellariidae	Pterodroma cahow
	Pterodroma phaeopygia
Ciconiiformes	
Ardeidae	Egretta eulophotes
Ciconiidae	Ciconia boyciana
Threskiornithidae	Geronticus eremita
Anseriformes	
Anatidae	Chloephaga rubidiceps*
Falconiformes	
Accipitridae	Haliaeetus pelagicus*
Gruiformes	
Gruidae	Grus iaponensis*
	Grus ieucogeranus*
	Grus nigricollis*
Otididae	Chlamydotis undulata* + 201
Charadriiformes	
Scolopacidae	Numenius borealis*
	Numenius benuirostris*
Leridae	Larus audouinii
	Larus relictus
	Larus saundersi
Alcidae	Synthliboramphus antiguus wumizusume
Passeriformes	
Parulidae	Dendroica kirtlandii
Fringillidae	Serinus syriacus

REPTILIA

Testudines	
Cheloniidae	Lepidochelys kempii*
Dermochelidae	Dermochelys coriacea*
Pelomedusidae	Podocnemis expansa* +203
Crocodylia	
Gavialidae	Gavialis gangeticus

PISCES

Siluriformes	
Schilbeidae	Pangasianodon gigas

APPENDIX II
Interpretation

1. Migratory species included in this Appendix are referred to:

   a) by the name of the species or subspecies; or

   b) as being all of the migratory species included in a higher taxon or designated part thereof.

   Unless otherwise indicated, where reference is made to a taxon higher that species, it is understood that all the migratory species within that taxon could significantly benefit from the conclusion of AGREEMENTS.

2. The abbreviation "spp." following the name of a Family or Genus is used to denote all migratory species within that Family or Genus.

3. Other references to taxa higher than species are for purposes of information or classification only.

4. The abbreviation "(s.l.)" is used to denote that the scientific name is used in its extended meaning.

5. The symbol (+) followed by a number placed against the name of a species or higher taxon denotes that only designated geographically separate populations of that taxon are included in this Appendix as follows:

   +201 Asian populations.

6. As asterisk (*) placed against the name of a species or higher taxon indicates that the species or a separate population of that species or one or more species included in that higher taxon, are included in Appendix I.

MAMMALIA

Cetacea	
Monodontidae	Delphinapterus leucas
Proboscidae	
Elephantidae	Loxodonta africana
Sirenia	
Dugongidae	Dugong dugon
Pinnipedia	
Phocidae	Monachus monachus*
Artiodactyla	
Camelidae	Vicugna vicugna*
Bovidae	Oryx dammah
	Gazella gazella + 201

AVES

Pelecaniformes	
Pelecanidae	Pelecanus crispus
Ciconiiformes	Ciconia ciconia
Ciconiidae	Ciconia nigra
Threskiornithidae	Platalea leucorodia
Phoenicopteridae	spp.
Anseriformes	
Anatidae	spp.*
Falconiformes	
Cathartidae	spp.
Pandionidae	Pandion haliaetus
Accipitridae	spp.*
Falconidae	spp.
Galliformes	
Phasianidae	Coturnix coturnix coturnix
Gruiformes	
Gruidae	Grus spp.*
	Anthropoides virgo
Otididae	Chlamydotis undulata* + 201
Charadriiformes	
Charadriidae	spp.
Scolopacidae	spp.*
Recurvirostridae	spp.
Phalaropodidae	spp.
Passeriformes	
Muscicapidae (s.l.)	spp.

REPTILIA

Testudines	
Cheloniidae	spp.*
Dermochelyidae	spp.*
Pelomedusidae	Podocnemis expansa*
Crocodylia	
Crocodylidae	crocodilus porosus

PISCES

Acipenseriformes	
Acipenseridae	Acipenser fulvescens

INSECTA

Lepidoptera	
Danaidae	Danaus plexippus

Convention on the Conservation of European Wildlife and Natural Habitats, Berne, 1979

Done at Berne 19 September 1979

*Entered into force 1 June 1982**

Depositary: The Council of Europe

Primary source citation: ETS 104

CONVENTION ON THE CONSERVATION OF EUROPEAN WILDLIFE AND NATURAL HABITATS

PREAMBLE

The member States of the Council of Europe and the other signatories hereto,

Considering that the aim of the Council of Europe is to achieve a greater unity between its members ;

Considering the wish of the Council of Europe to co-operate with other States in the field of nature conservation ;

Recognising that wild flora and fauna constitute a natural heritage of aesthetic, scientific, cultural, recreational, economic and intrinsic value that needs to be preserved and handed on to future generations ;

Recognising the essential role played by wild flora and fauna in maintaining biological balances ;

Noting that numerous species of wild flora and fauna are being seriously depleted and that some of them are threatened with extinction ;

Aware that the conservation of natural habitats is a vital component of the protection and conservation of wild flora and fauna ;

Recognising that the conservation of wild flora and fauna should be taken into consideration by the governments in their national goals and programmes, and that international co-operation should be established to protect migratory species in particular ;

Bearing in mind the widespread requests for common action made by governments or by international bodies, in particular the requests expressed by the United Nations Conference on the Human Environment 1972 and the Consultative Assembly of the Council of Europe ;

* This Convention is not in force for the United States.

Desiring particularly to follow, in the field of wildlife conservation, the recommendations of Resolution No. 2 of the Second European Ministerial Conference on the Environment,

Have agreed as follows :

CHAPTER I

General Provisions

Article 1

1. The aims of this Convention are to conserve wild flora and fauna and their natural habitats, especially those species and habitats whose conservation requires the co-operation of several States, and to promote such co-operation.

2. Particular emphasis is given to endangered and vulnerable species, including endangered and vulnerable migratory species.

Article 2

The Contracting Parties shall take requisite measures to maintain the population of wild flora and fauna at, or adapt it to, a level which corresponds in particular to ecological, scientific and cultural requirements, while taking account of economic and recreational requirements and the needs of sub-species, varieties or forms at risk locally.

Article 3

1. Each Contracting Party shall take steps to promote national policies for the conservation of wild flora, wild fauna and natural habitats, with particular attention to endangered and vulnerable species, especially endemic ones, and endangered habitats, in accordance with the provisions of this Convention.

2. Each Contracting Party undertakes, in its planning and development policies and in its measures against pollution, to have regard to the conservation of wild flora and fauna.

3. Each Contracting Party shall promote education and disseminate general information on the need to conserve species of wild flora and fauna and their habitats.

CHAPTER II

Protection of habitats

Article 4

1. Each Contracting Party shall take appropriate and necessary legislative and administrative measures to ensure the conservation of the habitats of the wild flora and fauna species, especially those specified in the Appendices I and II, and the conservation of endangered natural habitats.

2. The Contracting Parties in their planning and development policies shall have regard to the conservation requirements of the areas protected under the preceding paragraph, so as to avoid or minimise as far as possible any deterioration of such areas.

3. The Contracting Parties undertake to give special attention to the protection of areas that are of importance for the migratory species specified in Appendices II and III and which are appropriately situated in relation to migration routes, as wintering, staging, feeding, breeding or moulting areas.

4. The Contracting Parties undertake to co-ordinate as appropriate their efforts for the protection of the natural habitats referred to in this Article when these are situated in frontier areas.

CHAPTER III

Protection of species

Article 5

Each Contracting Party shall take appropriate and necessary legislative and administrative measures to ensure the special protection of the wild flora species specified in Appendix I. Deliberate picking, collecting, cutting or uprooting of such plants shall be prohibited. Each Contracting Party shall, as appropriate, prohibit the possession or sale of these species.

Article 6

Each Contracting Party shall take appropriate and necessary legislative and administrative measures to ensure the special protection of the wild fauna species specified in Appendix II. The following will in particular be prohibited for these species :

a. all forms of deliberate capture and keeping and deliberate killing ;

b. the deliberate damage to or destruction of breeding or resting sites ;

c. the deliberate disturbance of wild fauna, particularly during the period of breeding, rearing and hibernation, insofar as disturbance would be significant in relation to the objectives of this Convention ;

d. the deliberate destruction or taking of eggs from the wild or keeping these eggs even if empty ;

e. the possession of and internal trade in these animals, alive or dead, including stuffed animals and any readily recognisable part or derivative thereof, where this would contribute to the effectiveness of the provisions of this Article.

Article 7

1. Each Contracting Party shall take appropriate and necessary legislative and administrative measures to ensure the protection of the wild fauna species specified in Appendix III.

2. Any exploitation of wild fauna specified in Appendix III shall be regulated in order to keep the populations out of danger, taking into account the requirements of Article 2.

3. Measures to be taken shall include :

a. closed seasons and/or other procedures regulating the exploitation ;

b. the temporary or local prohibition of exploitation, as appropriate, in order to restore satisfactory population levels ;

c. the regulation as appropriate of sale, keeping for sale, transport for sale or offering for sale of live and dead wild animals.

Article 8

In respect of the capture or killing of wild fauna species specified in Appendix III and in cases where, in accordance with Article 9, exceptions are applied to species specified in Appendix II, Contracting Parties shall prohibit the use of all indiscriminate means of capture and killing and the use of all means capable of causing local disappearance of, or serious disturbance to, populations of a species, and in particular, the means specified in Appendix IV.

Article 9

1. Each Contracting Party may make exceptions from the provisions of Articles 4, 5, 6, 7 and from the prohibition of the use of the means mentioned in Article 8 provided that there is no other satisfactory solution and that the exception will not be detrimental to the survival of the population concerned :

— for the protection of flora and fauna ;

— to prevent serious damage to crops, livestock, forests, fisheries, water and other forms of property ;

— in the interests of public health and safety, air safety or other overriding public interests ;

— for the purposes of research and education, of repopulation, of reintroduction and for the necessary breeding ;

— to permit, under strictly supervised conditions, on a selective basis and to a limited extent, the taking, keeping or other judicious exploitation of certain wild animals and plants in small numbers.

2. The Contracting Parties shall report every two years to the Standing Committee on the exceptions made under the preceding paragraph. These reports must specify :

— the populations which are or have been subject to the exceptions and, when practical, the number of specimens involved ;

— the means authorised for the killing or capture ;

— the conditions of risk and the circumstances of time and place under which such exceptions were granted ;

— the authority empowered to declare that these conditions have been fulfilled, and to take decisions in respect of the means that may be used, their limits and the persons instructed to carry them out ;

— the controls involved.

CHAPTER IV

Special provisions for migratory species

Article 10

1. The Contracting Parties undertake, in addition to the measures specified in Articles 4, 6, 7 and 8, to co-ordinate their efforts for the protection of the migratory species specified in Appendices II and III whose range extends into their territories.

2. The Contracting Parties shall take measures to seek to ensure that the closed seasons and/or other procedures regulating the exploitation established under paragraph 3.*a* of Article 7 are adequate and appropriately disposed to meet the requirements of the migratory species specified in Appendix III.

CHAPTER V

Supplementary provisions

Article 11

1. In carrying out the provisions of this Convention, the Contracting Parties undertake :

a. to co-operate whenever appropriate and in particular where this would enhance the effectiveness of measures taken under other articles of this Convention ;

b. to encourage and co-ordinate research related to the purposes of this Convention.

2. Each Contracting Party undertakes :

a. to encourage the reintroduction of native species of wild flora and fauna when this would contribute to the conservation of an endangered species, provided that a study is first made in the light of the experiences of other Contracting Parties to establish that such reintroduction would be effective and acceptable ;

b. to strictly control the introduction of non-native species.

3. Each Contracting Party shall inform the Standing Committee of the species receiving complete protection on its territory and not included in Appendices I and II.

Article 12

The Contracting Parties may adopt stricter measures for the conservation of wild flora and fauna and their natural habitats than those provided under this Convention.

CHAPTER VI

Standing Committee

Article 13

1. For the purposes of this Convention, a Standing Committee shall be set up.

2. Any Contracting Party may be represented on the Standing Committee by one or more delegates. Each delegation shall have one vote. Within the areas of its competence, the European Economic Community shall exercise its right to vote with a number of votes equal to the number of its member States which are Contracting Parties to this Convention ; the European Economic Community shall not exercise its right to vote in cases where the member States concerned exercise theirs, and conversely.

3. Any member State of the Council of Europe which is not a Contracting Party to the Convention may be represented on the Committee as an observer.

The Standing Committee may, by unanimous decision, invite any non-member State of the Council of Europe which is not a Contracting Party to the Convention to be represented by an observer at one of its meetings.

Any body or agency technically qualified in the protection, conservation or management of wild fauna and flora and their habitats, and belonging to one of the following categories :

a. international agencies or bodies, either governmental or non-governmental, and national governmental agencies or bodies ;

b. national non-governmental agencies or bodies which have been approved for this purpose by the State in which they are located,

may inform the Secretary General of the Council of Europe, at least three months before the meeting of the Committee, of its wish to be represented at that meeting by observers. They shall be admitted unless, at least one month before the meeting, one-third of the Contracting Parties have informed the Secretary General of their objection.

4. The Standing Committee shall be convened by the Secretary General of the Council of Europe. Its first meeting shall be held within one year of the date of the entry into force of the Convention. It shall subsequently meet at least every two years and whenever a majority of the Contracting Parties so request.

5. A majority of the Contracting Parties shall constitute a quorum for holding a meeting of the Standing Committee.

6. Subject to the provisions of this Convention, the Standing Committee shall draw up its own Rules of Procedure.

Article 14

1. The Standing Committee shall be responsible for following the application of this Convention. It may in particular :

— keep under review the provisions of this Convention, including its Appendices, and examine any modifications necessary ;

— make recommendations to the Contracting Parties concerning measures to be taken for the purposes of this Convention ;

— recommend the appropriate measures to keep the public informed about the activities undertaken within the framework of this Convention ;

— make recommendations to the Committee of Ministers concerning non-member States of the Council of Europe to be invited to accede to this Convention ;

— make any proposal for improving the effectiveness of this Convention, including proposals for the conclusion, with the States which are not Contracting Parties to the Convention, of agreements that would enhance the effective conservation of species or groups of species.

2. In order to discharge its functions, the Standing Committee may, on its own initiative, arrange for meetings of groups of experts.

Article 15

After each meeting, the Standing Committee shall forward to the Committee of Ministers of the Council of Europe a report on its work and on the functioning of the Convention.

CHAPTER VII

Amendments

Article 16

1. Any amendment to the articles of this Convention proposed by a Contracting Party or the Committee of Ministers shall be communicated to the Secretary General of the Council of Europe and forwarded by him at least two months before the meeting of the Standing Committee to the member States of the Council of Europe, to any signatory, to any Contracting Party, to any State invited to sign this Convention in accordance with the provisions of Article 19 and to any State invited to accede to it in accordance with the provisions of Article 20.

2. Any amendment proposed in accordance with the provisions of the preceding paragraph shall be examined by the Standing Committee which :

a. for amendments to Articles 1 to 12, shall submit the text adopted by a three-quarters majority of the votes cast to the Contracting Parties for acceptance ;

b. for amendments to Articles 13 to 24, shall submit the text adopted by a three-quarters majority of the votes cast to the Committee of Ministers for approval. After its approval, this text shall be forwarded to the Contracting Parties for acceptance.

3. Any amendment shall enter into force on the thirtieth day after all the Contracting Parties have informed the Secretary General that they have accepted it.

4. The provisions of paragraphs 1, 2.*a* and 3 of this Article shall apply to the adoption of new Appendices to this Convention.

Article 17

1. Any amendment to the Appendices of this Convention proposed by a Contracting Party or the Committee of Ministers shall be communicated to the Secretary General of the Council of Europe and forwarded by him at least two months before the meeting of the Standing Committee to the member States of the Council of Europe, to any signatory, to any Contracting Party, to any State invited to sign this Convention in accordance with the provisions of Article 19 and to any State invited to accede to it in accordance with the provisions of Article 20.

2. Any amendment proposed in accordance with the provisions of the preceding paragraph shall be examined by the Standing Committee, which may adopt it by a two-thirds majority of the Contracting Parties. The text adopted shall be forwarded to the Contracting Parties.

3. Three months after its adoption by the Standing Committee and unless one-third of the Contracting Parties have notified objections, any amendment shall enter into force for those Contracting Parties which have not notified objections.

CHAPTER VIII

Settlement of disputes

Article 18

1. The Standing Committee shall use its best endeavours to facilitate a friendly settlement of any difficulty to which the execution of this Convention may give rise.

2. Any dispute between Contracting Parties concerning the interpretation or application of this Convention which has not been settled on the basis of the provisions of the preceding paragraph or by negotiation between the parties concerned shall, unless the said parties agree otherwise, be submitted, at the request of one of them, to arbitration. Each party shall designate an arbitrator and the two arbitrators shall designate a third arbitrator. Subject to the provisions of paragraph 3 of this Article, if one of the parties has not designated its arbitrator within the three months following the request for arbitration, he shall be designated at the request of the other party by the President of the European Court of Human Rights within a further three months' period. The same procedure shall be observed if the arbitrators cannot agree on the choice of the third arbitrator within the three months following the designation of the two first arbitrators.

3. In the event of a dispute between two Contracting Parties one of which is a member State of the European Economic Community, the latter itself being a Contracting Party, the other Contracting Party shall address the request for arbitration both to the member State and to the Community, which jointly, shall notify it, within two months of receipt of the request, whether the member State or the Community, or the member and the Community jointly, shall be party to the dispute. In the absence of such notification within the said time limit, the member State and the Community shall be considered as being one and the same party to the dispute for the purposes of the application of the provisions governing the constitution and procedure of the arbitration tribunal. The same shall apply when the member State and the Community jointly present themselves as party to the dispute.

4. The arbitration tribunal shall draw up its own Rules of Procedure. Its decisions shall be taken by majority vote. Its award shall be final and binding.

5. Each party to the dispute shall bear the expenses of the arbitrator designated by it and the parties shall share equally the expenses of the third arbitrator, as well as other costs entailed by the arbitration.

CHAPTER IX

Final Provisions

Article 19

1. This Convention shall be open for signature by the member States of the Council of Europe and non-member States which have participated in its elaboration and by the European Economic Community.

Up until the date when the Convention enters into force, it shall also be open for signature by any other State so invited by the Committee of Ministers.

The Convention is subject to ratification, acceptance or approval. Instruments of ratification, acceptance or approval shall be deposited with the Secretary General of the Council of Europe.

2. The Convention shall enter into force on the first day of the month following the expiry of a period of three months after the date on which five States, including at least four member States of the Council of Europe, have expressed their consent to be bound by the Convention in accordance with the provisions of the preceding paragraph.

3. In respect of any signatory State or the European Economic Community which subsequently express their consent to be bound by it, the Convention shall enter into force on the first day of the month following the expiry of a period of three months after the date of the deposit of the instrument of ratification, acceptance or approval.

Article 20

1. After the entry into force of this Convention, the Committee of Ministers of the Council of Europe, after consulting the Contracting Parties, may invite to accede to the Convention any non-member State of the Council which, invited to sign in accordance with the provisions of Article 19, has not yet done so, and any other non-member State.

2. In respect of any acceding State, the Convention shall enter into force on the first day of the month following the expiry of a period of three months after the date of the deposit of the instrument of accession with the Secretary General of the Council of Europe.

Article 21

1. Any State may, at the time of signature or when depositing its instrument of ratification, acceptance, approval or accession, specify the territory or territories to which this Convention shall apply.

2. Any Contracting Party may, when depositing its instrument of ratification, acceptance, approval or accession or at any later date, by declaration addressed to the Secretary General of the Council of Europe, extend the application of this Convention to any other territory specified in the declaration and for whose international relations it is responsible or on whose behalf it is authorised to give undertakings.

3. Any declaration made under the preceding paragraph may, in respect of any territory mentioned in such declaration, be withdrawn by notification addressed to the Secretary General. Such withdrawal shall become effective on the first day of the month following the expiry of a period of six months after the date of receipt of the notification by the Secretary General.

Article 22

1. Any State may, at the time of signature or when depositing its instrument of ratification, acceptance, approval or accession, make one or more reservations regarding certain species specified in Appendices I to III and/or, for certain species mentioned in the reservation or reservations, regarding certain means or methods of killing, capture and other exploitation listed in Appendix IV. No reservations of a general nature may be made.

2. Any Contracting Party which extends the application of this Convention to a territory mentioned in the declaration referred to in paragraph 2 of Article 21 may, in respect of the territory concerned, make one or more reservations in accordance with the provisions of the preceding paragraph.

3. No other reservation may be made.

4. Any Contracting Party which has made a reservation under paragraphs 1 and 2 of this Article may wholly or partly withdraw it by means of a notification addressed to the Secretary General of the Council of Europe. Such withdrawal shall take effect as from the date of receipt of the notification by the Secretary General.

Article 23

1. Any Contracting Party may, at any time, denounce this Convention by means of a notification addressed to the Secretary General of the Council of Europe.

2. Such denunciation shall become effective on the first day of the month following the expiry of a period of six months after the date of receipt of the notification by the Secretary General.

Article 24

The Secretary General of the Council of Europe shall notify the member States of the Council of Europe, any signatory State, the European Economic Community if a signatory of this Convention and any Contracting Party of :

a. any signature ;

b. the deposit of any instrument of ratification, acceptance, approval or accession ;

c. any date of entry into force of this Convention in accordance with Articles 19 and 20 ;

d. any information forwarded under the provisions of paragraph 3 of Article 13 ;

e. any report established in pursuance of the provisions of Article 15 ;

f. any amendment or any new Appendix adopted in accordance with Articles 16 and 17 and the date on which the amendment or new Appendix comes into force ;

g. any declaration made under the provisions of paragraphs 2 and 3 of Article 21 ;

h. any reservation made under the provisions of paragraphs 1 and 2 of Article 22 ;

i. the withdrawal of any reservation carried out under the provisions of paragraph 4 of Article 22 ;

j. any notification made under the provisions of Article 23 and the date on which the denunciation takes effect.

In witness whereof the undersigned, being duly authorised thereto, have signed this Convention.

Done at Bern, this 19th day of September 1979, in English and French, both texts being equally authentic, in a single copy which shall be deposited in the archives of the Council of Europe. The Secretary General of the Council of Europe shall transmit certified copies to each member State of the Council of Europe, to any signatory State, to the European Economic Community if a signatory and to any State invited to sign this Convention or to accede thereto.

APPENDIX I

Strictly protected flora species

PTERIDOPHYTA
ASPIDIACEAE
Diplazium caudatum (Cav.) Jermy
PTERIDACEAE
Pteris serrulata Forssk.

GYMNOSPERMAE
PINACEAE
Abies nebrodensis (Lojac.) Mattei

ANGIOSPERMAE
ALISMATACEAE
Alisma wahlenbergii (O. R. Holmberg) Juzepczuk
BERBERIDACEAE
Gymnospermium altaicum (Pallas) Spach
BORAGINACEAE
Anchusa crispa Viv.
Myosotis rehsteineri Wartm.
Omphalodes littoralis Lehm.
Onosma caespitosum Kotschy
Onosma troodi Kotschy
Solenanthus albanicus (Degen *et al.*) Degen & Baldacci
Symphytum cycladense Pawl.
CAMPANULACEAE
Campanula sabatia De Not.
CARYOPHYLLACEAE
Arenaria lithops Heywood ex McNeill
Gypsophila papillosa P. Porta
Loeflingia tavaresiana G. Samp.
Silene orphanidis Boiss.
Silene rothmaleri Pinto de Silva
Silene velutina Pourret ex Loisel.
CHENOPODIACEAE
Kochia saxicola Guss.
Salicornia veneta Pignatti & Lausi
CISTACEAE
Tuberaria major (Willk.) Pinto da Silva
COMPOSITAE
Anacyclus alboranensis Esteve Chueca & Varo
Anthemis glaberrima (Rech.f.) Greuter
Artemisia granatensis Boiss.
Artemisia laciniata Willd.
Aster pyrenaeus Desf. ex DC.
Aster sibiricus L.
Centaurea balearica J.D. Rodriguez
Centaurea heldreichii Halácsy
Centaurea horrida Badaro
Centaurea kalambakensis Freyn & Sint.
Centaurea lactiflora Halácsy
Centaurea linaresii Lazaro
Centaurea megarensis Halácsy & Hayek
Centaurea niederi Heldr.
Centaurea peucedanifolia Boiss. & Orph.
Centaurea princeps Boiss. & Heldr.
Crepis crocifolia Boiss. & Heldr.
Lamyropsis microcephala (Moris) Dittrich & Greuter
Leontodon siculus (Guss.) Finch & Sell
Logfia neglecta (Soy.-Will.) Holub
Senecio alboranicus Maire
CONVOLVULACEAE
Convolvulus argyrothamnos Greuter
CRUCIFERAE
Alyssum akamasicum B.L. Burtt
Alyssum fastigiatum Heywood
Arabis kennedyae Meikle
Biscutella neustriaca Bonnet
Brassica hilarionis Post
Brassica macrocarpa Guss.
Braya purpurascens (R. Br.) Bunge
Coronopus navasii Pau
Diplotaxis siettiana Maire
Enarthrocarpus pterocarpus DC.
Hutera rupestris P. Porta
Iberis arbuscula Runemark
Ionopsidium acaule (Desf.) Reichenb.
Ptilotrichum pyrenaicum (Lapeyr.) Boiss.
Rhynchosinapis johnstonii (G. Samp.) Heywood

Sisymbrium matritense P.W. Ball & Heywood
EUPHORBIACEAE
Euphorbia ruscinonensis Boiss.
GRAMINEAE
Stipa bavarica Martinovsky & H. Scholz
GROSSULARIACEAE
Ribes sardoum Martelli
HYPERICACEAE
Hypericum aciferum (Greuter) N.K.B. Robson
IRIDACEAE
Crocus cyprius Boiss. & Kotschy
Crocus hartmannianus Holmboe
LABIATAE
Amaracus cordifolium Montr. & Auch.
Micromeria taygetea P.H. Davis
Nepeta sphaciotica P.H. Davis
Phlomis brevibracteata Turrill
Phlomis cypria Post
Salvia crassifolia Sibth.* & Smith
Sideritis cypria Post
Thymus camphoratus Hoffmanns. & Link
Thymus carnosus Boiss.
Thymus cephalotos L.
LEGUMINOSAE
Astragalus algarbiensis Coss. ex Bunge
Astragalus aquilinus Anzalone
Astragalus maritimus Moris
Astragalus verrucosus Moris
Cytisus aeolicus Guss. ex Lindl.
Ononis maweana Ball
Oxytropis deflexa (Pallas) DC.
LENTIBULARIACEAE
Pinguicula crystallina Sibth. & Smith
LILIACEAE
Androcymbium rechingeri Greuter
Chionodoxa lochiae Meikle
Muscari gussonei (Parl.) Tod.
Scilla morrisii Meikle
ORCHIDACEAE
Ophrys kotschyi Fleischm. & Soó
PAPAVERACEAE
Rupicapnos africana (Lam.) Pomel
PLUMBAGINACEAE
Armeria rouyana Daveau
Limonium paradoxum Pugsley
Limonium recurvum C.E. Salmon
POLYGONACEAE
Rheum rhaponticum L.
PRIMULACEAE
Primula apennina Widmer
Primula egaliksensis Wormsk.
RANUNCULACEAE
Aquilegia cazorlensis Heywood
Aquilegia kitaibelii Schott
Consolida samia P.H. Davis
Delphinium caseyi B.L. Burtt
Ranunculus kykkoënsis Meikle
Ranunculus weyleri Mares
RUBIACEAE
Galium litorale Guss.
SCROPHULARIACEAE
Antirrhinum charidemi Lange
Euphrasia marchesettii Wettst. ex Marches.
Linaria algarviana Chav.
Linaria ficalhoana Rouy
SELAGINACEAE
Globularia stygia Orph. ex Boiss.
SOLANACEAE
Atropa baetica Willk.
THYMELAEACEAE
Daphne rodriguezii Texidor
UMBELLIFERAE
Angelica heterocarpa Lloyd
Angelica palustris (Besser) Hoffman
Bupleurum kakiskalae Greuter
Ferula cypria Post
Laserpitium longiradium Boiss.
Oenanthe conioides Lange
VALERIANACEAE
Valeriana longiflora Willk.
VIOLACEAE
Viola hispida Lann.
Viola jaubertiana Mares & Vigineix

APPENDIX II

Strictly protected fauna species

Mammals

INSECTIVORA
Talpidae
Desmana pyrenaica
(Galemys pyrenaicus)

MICROCHIROPTERA
all species except
Pipistrellus pipistrellus

RODENTIA
Sciuridae
Citellus citellus
Cricetidae
Cricetus cricetus
Hystricidae
Hystrix cristata

CARNIVORA
Canidae
Canis lupus
Alopex lagopus
Ursidae
all species

Mustelidae
Lutreola (Mustela) lutreola
Lutra lutra
Gulo gulo
Felidae
Lynx pardina (pardellus)
Panthera pardus
Panthera tigris
Odobenidae
Odobenus rosmarus
Phocidae
Monachus monachus

ARTIODACTYLA
Bovidae
Capra aegagrus
Rupicapra rupicapra ornata
Ovibos moschatus

ODONTOCETI
Delphinidae
Delphinus delphis
Tursiops truncatus (tursio)
Phocaenidae
Phocaena phocaena

MYSTACOCETI
Balaenopteridae
Sibbaldus (Balaenoptera) musculus
Megaptera novaengliae (longimana, nodosa)
Balaenidae
Eubalaena glacialis
Balaena mysticetus

Birds

GAVIIFORMES
Gaviidae
all species

PODICIPEDIFORMES
Podicipedidae
Podiceps griseigena
Podiceps auritus
Podiceps nigricollis (caspicus)
Podiceps ruficollis

PROCELLARIIFORMES
Hydrobatidae
all species
Procellariidae
Puffinus puffinus
Procellaria diomedea

PELECANIFORMES
Phalacrocoracidae
Phalocrocorax pygmaeus
Pelecanidae
all species

CICONIIFORMES
Ardeidae
Ardea purpurea
Casmerodius albus (Egretta alba)
Egretta garzetta
Ardeola ralloides
Bulbucus (Ardeola) ibis
Nycticorax nycticorax
Ixobrychus minutus
Botaurus stellaris
Ciconiidae
all species
Threskiornithidae
all species
Phoenicopteridae
Phoenicopterus ruber

ANSERIFORMES
Anatidae
Cygnus cygnus
Cygnus bewickii (columbianus)
Anser erythropus
Branta leucopsis
Branta ruficollis
Tadorna tadorna
Tardona ferruginea
Marmaronetta (Anas) angustirostris
Somateria spectabilis
Polysticta stelleri
Histrionicus histrionicus
Bucephala islandica
Mergus albellus
Oxyura leucocephala

FALCONIFORMES
all species

GRUIFORMES
Turnicidae
Turnix sylvatica
Gruidae
all species
Rallidae
Porzana porzana
Porzana pusilla
Porzana parva
Crex crex
Porphyrio porphyrio
Fulica cristata
Otitidae
all species

CHARADRIIFORMES
Charadriidae
Hoplopterus spinosus
Charadrius hiaticula
Charadrius dubius
Charadrius alexandrinus
Charadrius leschenaulti
Eudromias morinellus
Arenaria interpres
Scolopacidae
Gallinago media
Numenius tenuirostris
Tringa stagnatilis

Tringa ochropus
Tringa glareola
Tringa hypoleucos
Tringa cinerea
Calidris minuta
Calidris temminckii
Calidris maritima
Calidris alpina
Calidris ferruginea
Calidris alba
Limicola falcinellus
Recurvirostridae
all species
Phalaropodidae
all species
Burhinidae
Burhinus oedicnemus
Glareolidae
all species
Laridae
Pagophilla eburnea
Larus audouinii
Larus melanocephalus
Larus genei
Larus minutus
Larus (Xenia) sabini
Chlidonias niger
Chlidonias leucopterus
Chlidonias hybrida
Gelochelidon nilotica
Hydroprogne caspia
Sterna hirundo
Sterna paradisaea (macrura)
Sterna dougallii
Sterna albifrons
Sterna sandvicensis

COLUMBIFORMES
Pteroclididae
all species

CUCULIFORMES
Cuculidae
Clamator glandarius

STRIGIFORMES
all species

CAPRIMULGIFORMES
Caprimulgidae
all species

APODIFORMES
Apodidae
Apus pallidus
Apus melba
Apus caffer

CORACIIFORMES
Alcedinidae
Alcedo atthis
Meropidae
Merops apiaster
Coraciidae
Coracias garrulus
Upopidae
Upopa epops

PICIFORMES
all species

PASSERIFORMES
Alaudidae
Calandrella brachydactyla
Calandrella rufescens
Melanocorypha calandra
Melanocorypha leucoptera
Melanocorypha yeltoniensis
Galerida theklae
Eremophila alpestris
Hirundinidae
all species
Motacillidae
all species
Laniidae
all species
Bombycillidae
Bombycilla garrulus
Cinclidae
Cinclus cinclus
Troglodytidae
Troglodytes troglodytes
Prunellidae
all species
Muscicapidae
Turdinae
Saxicola rubetra
Saxicola torquata
Oenanthe oenanthe
Oenanthe pleschanka (leucomela)
Oenanthe hispanica
Oenanthe isabellina
Oenanthe leucura
Cercotrichas galactotes
Monticola saxatilis
Monticola solitarius
Phoenicurus ochruros
Phoenicurus phoenicurus
Erithacus rubecula
Luscinia megarhynchos
Luscinia luscinia
Luscinia (Cyanosylvia) svecica
Tarsiger cyanurus
Sylviinae
all species
Regulinae
all species
Muscicapinae
all species
Timaliinae
Panurus biarmicus
Paridae

all species
Sittidae
all species
Certhiidae
all species
Emberizidae
Emberiza citrinella
Emberiza leucocephala
Emberiza cirlus
Emberiza cineracea
Emberiza caesia
Emberiza cia
Emberiza schoeniclus
Emberiza melanocephala
Emberiza aureola
Emberiza pusilla
Emberiza rustica
Plectrophenax nivalis
Calcarius lapponicus
Fringillidae
Carduelis chloris
Carduelis carduelis
Carduelis spinus
Carduelis flavirostris
Carduelis cannabina
Carduelis flammea
Carduelis hornemanni
Serinus citrinella
Serinus serinus
Loxia curvirostra
Loxia pityopsittacus
Loxia leucoptera
Pinicola enucleator
Carpodacus erythrinus
Rhodopechys githaginea
Coccothraustes coccothraustes
Ploceidae
Petronia petronia
Montrifringilla nivalis
Sturnidae
Sturnus unicolor
Sturnus roseus
Oriolidae
Oriolus oriolus
Corvidae
Perisoreus infaustus
Cyanopica cyanus
Nucifraga caryocatactes
Pyrrhocorax pyrrhocorax
Pyrrhocorax graculus

Reptiles

TESTUDINES
Testudinidae
Testudo hermanni
Testudo graeca
Testudo marginata
Emydidae
Emys orbicularis
Mauremys caspica
Dermochelyidae
Dermochelys coriacea
Cheloniidae
Caretta caretta
Lepidochelys kempii
Chelonia mydas
Eretmochelys imbricata

SAURIA
Gekkonidae
Cyrtodactylus kotschyi
Chamaeleontidae
Chamaeleo chamaeleon
Lacertidae
Algyroides marchi
Lacerta lepida
Lacerta parva
Lacerta simonyi
Lacerta princeps
Lacerta viridis
Podarcis muralis
Podarcis lilfordi
Podarcis sicula
Podarcis filfolensis
Scincidae
Ablepharus kitaibelii

OPHIDIA
Colubridae
Coluber hippocrepis
Elaphe situla
Elaphe quatuorlineata
Elaphe longissima
Coronella austriaca
Viperidae
Vipera ursinii
Vipera latasti
Vipera ammodytes
Vipera xanthina
Vipera lebetina
Vipera kaznakovi

Amphibians

CAUDATA
Salamandridae
Salamandra (Mertensiella) luschani
Salamandrina terdigitata
Chioglossa lusitanica
Triturus cristatus
Proteidae
Proteus anguinus

ANURA
Discoglossidae
Bombina variegata
Bombina bombina
Alytes obstetricans
Alytes cisternasii
Pelobatidae
Pelobates cultripes

Pelobates fuscus
Bufonidae
Bufo calamita
Bufo viridis
Hylidae
Hyla arborea
Ranidae
Rana arvalis
Rana dalmatina
Rana latastei

APPENDIX III

Protected fauna species

Mammals

INSECTIVORA
Erinaceidae
Erinaceus europaeus
Soricidae
all species

MICROCHIROPTERA
Vespertilionidae
Pipistrellus pipistrellus

DUPLICIDENTATA
Leporidae
Lepus timidus
Lepus capensis (europaeus)

RODENTIA
Sciuridae
Sciurus vulgaris
Marmota marmota
Castoridae
Castor fiber
Gliridae
all species
Microtidae
Microtus ratticeps (oeconomus)
Microtus nivalis (lebrunii)

CETACEA
all species not mentioned in Appendix II

CARNIVORA
Mustelidae
Meles meles
Mustela erminea
Mustela nivalis
Putorius (Mustela) putorius
Martes martes
Martes foina
Viverridae
all species
Felidae
Felis catus (silvestris)
Lynx lynx
Phocidae
Phoca vitulina
Pusa (Phoca) hispida
Pagophilus groenlandicus (Phoca groenlandica)
Erignathus barbatus
Halichoerus grypus
Cystophora cristata

ARTIODACTYLA
Suidae
Sus scrofa meridionalis
Cervidae
all species
Bovidae
Ovis aries (musimon, ammon)
Capra ibex
Capra pyrenaica
Rupicapra rupicapra

Birds

All species not included in Appendix II with the exception of :
Larus marinus
Larus fuscus
Larus argentatus
Columba palumbus
Passer domesticus
Sturnus vulgaris
Garrulus glandarius
Pica pica
Corvus monedula
Corvus frugilegus
Corvus corone (corone and cornix)

Reptiles

All species not included in Appendix II

Amphibians

All species not included in Appendix II

APPENDIX IV

Prohibited means and methods of killing, capture and other forms of exploitation

MAMMALS

Snares
Live animals used as decoys which are blind or mutilated
Tape recorders
Electrical devices capable of killing and stunning
Artificial light sources
Mirrors and other dazzling devices
Devices for illuminating targets
Sighting devices for night shooting comprising an electronic image magnifier or image converter
Explosives[1]
Nets[2]
Traps[2]
Poison and poisoned or anaesthetic bait
Gassing or smoking out
Semi-automatic or automatic weapons with a magazine capable of holding more than two rounds of ammunition
Aircraft
Motor vehicles in motion

1. Except for whale hunting
2. If applied for large scale or non-selective capture or killing

BIRDS

Snares[1]
Limes
Hooks
Live birds used as decoys which are blind or mutilated
Tape recorders
Electrical devices capable of killing and stunning
Artificial light sources
Mirrors and other dazzling devices
Devices for illuminating targets
Sighting devices for night shooting comprising an electronic image magnifier or image converter
Explosives
Nets
Traps
Poison and poisoned or anaesthetic bait
Semi-automatic or automatic weapons with a magazine capable of holding more than two rounds of ammunition
Aircraft
Motor vehicles in motion

1. Except Lagopus north of latitude 58°N

Convention on Long-Range Transboundary Air Pollution, Geneva, 1979

Done at Geneva 13 November 1979

Entered into force 16 March 1983

Depositary: Secretary-General of the United Nations

Primary source citation: TIAS 10541

CONVENTION ON LONG-RANGE TRANSBOUNDARY AIR POLLUTION

The Parties to the present Convention,

Determined to promote relations and co-operation in the field of environmental protection,

Aware of the significance of the activities of the United Nations Economic Commission for Europe in strengthening such relations and co-operation, particularly in the field of air pollution including long-range transport of air pollutants,

Recognizing the contribution of the Economic Commission for Europe to the multilateral implementation of the pertinent provisions of the Final Act of the Conference on Security and Co-operation in Europe,

Cognizant of the references in the chapter on environment of the Final Act of the Conference on Security and Co-operation in Europe calling for co-operation to control air pollution and its effects, including long-range transport of air pollutants, and to the development through international co-operation of an extensive programme for the monitoring and evaluation of long-range transport of air pollutants, starting with sulphur dioxide and with possible extension to other pollutants,

Considering the pertinent provisions of the Declaration of the United Nations Conference on the Human Environment, and in particular principle 21, which expresses the common conviction that States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction,

Recognizing the existence of possible adverse effects, in the short and long term, of air pollution including transboundary air pollution,

Concerned that a rise in the level of emissions of air pollutants within the region as forecast may increase such adverse effects,

Recognizing the need to study the implications of the long-range transport of air pollutants and the need to seek solutions for the problems identified,

Affirming their willingness to reinforce active international cooperation to develop appropriate national policies and by means of exchange of information, consultation, research and monitoring, to co-ordinate national action for combating air pollution including long-range transboundary air pollution,

Have agreed as follows:

DEFINITIONS

Article 1

For the purposes of the present Convention:

(a) *"air pollution"* means the introduction by man, directly or indirectly, of substances or energy into the air resulting in deleterious effects of such a nature as to endanger human health, harm living resources and ecosystems and material property and impair or interfere with amenities and other legitimate uses of the environment, and "air pollutants" shall be construed accordingly;

(b) *"long-range transboundary air pollution"* means air pollution whose physical origin is situated wholly or in part within the area under the national jurisdiction of one State and which has adverse effects in the area under the jurisdiction of another State at such a distance that it is not generally possible to distinguish the contribution of individual emission sources or groups of sources.

FUNDAMENTAL PRINCIPLES

Article 2

The Contracting Parties, taking due account of the facts and problems involved, are determined to protect man and his environment against air pollution and shall endeavour to limit and, as far as possible, gradually reduce and prevent air pollution including long-range transboundary air pollution.

Article 3

The Contracting Parties, within the framework of the present Convention, shall by means of exchanges of information, consultation, research and monitoring, develop without undue delay policies and strategies which shall serve as a means of combating the discharge of air pollutants, taking into account efforts already made at national and international levels.

Article 4

The Contracting Parties shall exchange information on and review their policies, scientific activities and technical measures aimed at combating, as far as possible, the discharge of air pollutants which may have adverse effects, thereby contributing to the reduction of air pollution including long-range transboundary air pollution.

Article 5

Consultations shall be held, upon request, at an early stage between, on the one hand, Contracting Parties which are actually affected by or exposed to a significant risk of long-range transboundary air pollution and, on the other hand, Contracting Parties within which and subject to whose jurisdiction a significant contribution to long-range

transboundary air pollution originates, or could originate, in connexion with activities carried on or contemplated therein.

AIR QUALITY MANAGEMENT

Article 6

Taking into account articles 2 to 5, the ongoing research, exchange of information and monitoring and the results thereof, the cost and effectiveness of local and other remedies and, in order to combat air pollution, in particular that originating from new or rebuilt installations, each Contracting Party undertakes to develop the best policies and strategies including air quality management systems and, as part of them, control measures compatible with balanced development, in particular by using the best available technology which is economically feasible and low- and non-waste technology.

RESEARCH AND DEVELOPMENT

Article 7

The Contracting Parties, as appropriate to their needs, shall initiate and co-operate in the conduct of research into and/or development of:

(a) existing and proposed technologies for reducing emissions of sulphur compounds and other major air pollutants, including technical and economic feasibility, and environmental consequences;

(b) instrumentation and other techniques for monitoring and measuring emission rates and ambient concentration of air pollutants;

(c) improved models for a better understanding of the transmission of long-range transboundary air pollutants;

(d) the effects of sulphur compounds and other major air pollutants on human health and the environment, including agriculture, forestry, materials, aquatic and other natural ecosystems and visibility, with a view to establishing a scientific basis for dose/effect relationships designed to protect the environment;

(e) the economic, social and environmental assessment of alternative measures for attaining environmental objectives including the reduction of long-range transboundary air pollution;

(f) education and training programmes related to the environmental aspects of pollution by sulphur compounds and other major air pollutants.

EXCHANGE OF INFORMATION

Article 8

The Contracting Parties, within the framework of the Executive Body referred to in article 10 and bilaterally, shall, in their common interests, exchange available information on:

(a) data on emissions at periods of time to be agreed upon, of agreed air pollutants, starting with sulphur dioxide, coming from grid-units of agreed size; or on the fluxes of agreed air pollutants, starting with sulphur dioxide, across national borders, at distances and at periods of time to be agreed upon;

(b) major changes in national policies and in general industrial development, and their potential impact, which would be likely to cause significant changes in long-range transboundary air pollution;

(c) control technologies for reducing air pollution relevant to long-range transboundary air pollution;

(d) the projected cost of the emission control of sulphur compounds and other major air pollutants on a national scale;

(e) meteorological and physico-chemical data relating to the processes during transmission;

(f) physico-chemical and biological data relating to the effects of long-range transboundary air pollution and the extent of the damage which these data indicate can be attributed to long-range transboundary air pollution;

(g) national, subregional and regional policies and strategies for the control of sulphur compounds and other major air pollutants.

IMPLEMENTATION AND FURTHER DEVELOPMENT OF THE CO-OPERATIVE PROGRAMME FOR THE MONITORING AND EVALUATION OF THE LONG-RANGE TRANSMISSION OF AIR POLLUTANTS IN EUROPE

Article 9

The Contracting Parties stress the need for the implementation of the existing "Co-operative programme for the monitoring and evaluation of the long-range transmission of air pollutants in Europe" (hereinafter referred to as EMEP) and, with regard to the further development of this programme, agree to emphasize:

(a) the desirability of Contracting Parties joining in and fully implementing EMEP which, as a first step, is based on the monitoring of sulphur dioxide and related substances:

(b) the need to use comparable or standardized procedures for monitoring whenever possible;

(c) the desirability of basing the monitoring programme on the framework of both national and international programmes. The establishment of monitoring stations and the collection of data shall be carried out under the national jurisdiction of the country in which the monitoring stations are located;

(d) the desirability of establishing a framework for a co-operative environmental monitoring programme, based on and taking into account present and future national, subregional, regional and other international programmes;

(e) the need to exchange data on emissions at periods of time to be agreed upon, of agreed air pollutants, starting with sulphur dioxide, coming from grid-units of agreed size; or on the fluxes of agreed air pollutants, starting with sulphur dioxide, across national borders, at distances and at periods of time to be agreed upon. The method, including the model, used to determine the fluxes, as well as the method, including the model, used to determine the transmission of air pollutants based on the emissions per grid-unit, shall be made available and periodically reviewed, in order to improve the methods and the models;

(f) their willingness to continue the exchange and periodic updating of national data on total emissions of agreed air pollutants, starting with sulphur dioxide;

(g) the need to provide meteorological and physico-chemical data relating to processes during transmission;

(h) the need to monitor chemical components in other media such as water, soil and vegetation, as well as a similar monitoring programme to record effects on health and environment;

(i) the desirability of extending the national EMEP networks to make them operational for control and surveillance purposes.

EXECUTIVE BODY

Article 10

1. The representatives of the Contracting Parties shall, within the framework of the Senior Advisers to ECE Governments on Environmental Problems, constitute the Executive Body of the present Convention, and shall meet at least annually in that capacity.

2. The Executive Body shall:

(a) review the implementation of the present Convention;

(b) establish, as appropriate, working groups to consider matters related to the implementation and development of the present Convention and to this end to prepare appropriate studies and other documentation and to submit recommendations to be considered by the Executive Body;

(c) fulfil such other functions as may be appropriate under the provisions of the present Convention.

3. The Executive Body shall utilize the Steering Body for the EMEP to play an integral part in the operation of the present Convention, in particular with regard to data collection and scientific co-operation.

4. The Executive Body, in discharging its functions, shall, when it deems appropriate, also make use of information from other relevant international organizations.

SECRETARIAT

Article 11

The Executive Secretary of the Economic Commission for Europe shall carry out, for the Executive Body, the following secretariat functions:

(a) to convene and prepare the meetings of the Executive Body;

(b) to transmit to the Contracting Parties reports and other information received in accordance with the provisions of the present Convention;

(c) to discharge the functions assigned by the Executive Body.

AMENDMENTS TO THE CONVENTION

Article 12

1. Any Contracting Party may propose amendments to the present Convention.

2. The text of proposed amendments shall be submitted in writing to the Executive Secretary of the Economic Commission for Europe, who shall communicate them to all Contracting Parties. The Executive Body shall discuss proposed amendments at its next annual meeting provided that such proposals have been circulated by the Executive Secretary of the Economic Commission for Europe to the Contracting Parties at least ninety days in advance.

3. An amendment to the present Convention shall be adopted by consensus of the representatives of the Contracting Parties, and shall enter into force for the Contracting Parties which have accepted it on the ninetieth day after the date on which two-thirds of the Contracting Parties have deposited their instruments of acceptance with the depositary. Thereafter, the amendment shall enter into force for any other Contracting Party on the ninetieth day after the date on which that Contracting Party deposits its instrument of acceptance of the amendment.

SETTLEMENT OF DISPUTES

Article 13

If a dispute arises between two or more Contracting Parties to the present Convention as to the interpretation or application of the Convention, they shall seek a solution by negotiation or by any other method of dispute settlement acceptable to the parties to the dispute.

SIGNATURE

Article 14

1. The present Convention shall be open for signature at the United Nations Office at Geneva from 13 to 16 November 1979 on the occasion of the High-level Meeting within the framework of the Economic Commission for Europe on the Protection of the Environment, by the member States of the Economic Commission for Europe as well as States having consultative status with the Economic Commission for Europe, pursuant to paragraph 8 of Economic and Social Council resolution 36 (IV) of 28 March 1947, and by regional economic integration organizations, constituted by sovereign States members of the Economic Commission for Europe, which have competence in respect of the negotiation, conclusion and application of international agreements in matters covered by the present Convention.

2. In matters within their competence, such regional economic integration organizations shall, on their own behalf, exercise the rights and fulfil the responsibilities which the present Convention attributes to their member States. In such cases, the member States of these organizations shall not be entitled to exercise such rights individually.

RATIFICATION, ACCEPTANCE, APPROVAL AND ACCESSION

Article 15

1. The present Convention shall be subject to ratification, acceptance or approval.

2. The present Convention shall be open for accession as from 17 November 1979 by the States and organizations referred to in article 14, paragraph 1.

3. The instruments of ratification, acceptance, approval or accession shall be deposited with the Secretary-General of the United Nations, who will perform the functions of the depositary.

ENTRY INTO FORCE

Article 16

1. The present Convention shall enter into force on the ninetieth day after the date of deposit of the twenty-fourth instrument of ratification, acceptance, approval or accession.

2. For each Contracting Party which ratifies, accepts or approves the present Convention or accedes thereto after the deposit of the twenty-fourth instrument of ratification, acceptance, approval or accession, the Convention shall enter into force on the ninetieth day after the date of deposit by such Contracting Party of its instrument of ratification, acceptance, approval or accession.

WITHDRAWAL

Article 17

At any time after five years from the date on which the present Convention has come into force with respect to a Contracting Party, that Contracting Party may withdraw from the Convention by giving written notification to the depositary. Any such withdrawal shall take effect on the ninetieth day after the date of its receipt by the depositary.

AUTHENTIC TEXTS

Article 18

The original of the present Convention, of which the English, French and Russian texts are equally authentic, shall be deposited with the Secretary-General of the United Nations.

IN WITNESS WHEREOF the undersigned, being duly authorized thereto, have signed the present Convention.

DONE at Geneva, this thirteenth day of November, one thousand nine hundred and seventy-nine.

Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution on Long-Term Financing of the Co-operative Programme for Monitoring and Evaluation of the Long-Range Transmission of Air Pollutants in Europe (EMEP), Geneva, 1984

Done at Geneva 28 September 1984

Entered into force 28 January 1988

Primary source citation: 24 ILM 484 (1985)

PROTOCOL TO THE 1979 CONVENTION ON LONG-RANGE TRANSBOUNDARY AIR POLLUTION ON LONG-TERM FINANCING OF THE CO-OPERATIVE PROGRAMME FOR MONITORING AND EVALUATION OF THE LONG-RANGE TRANSMISSION OF AIR POLLUTANTS IN EUROPE (EMEP)

The Contracting Parties

Recalling that the Convention on Long-range Transboundary Air Pollution (hereinafter referred to as "the Convention") entered into force on 16 March 1983,

Aware of the importance of the "Co-operative programme for the monitoring and evaluation of the long-range transmission of air pollutants in Europe" (hereinafter referred to as EMEP), as provided for in Articles 9 and 10 of the Convention,

Cognizant of the positive results achieved so far in the implementation of EMEP,

Recognizing that the implementation of EMEP has hitherto been made possible by financial means provided by the United Nations Environment Programme (UNEP) and by voluntary contributions from Governments,

Bearing in mind that since the UNEP contribution will continue only until the end of 1984, and that since this contribution together with the voluntary contributions from Governments have been inadequate to support fully the EMEP work plan, it will therefore be necessary to provide for long-term funding after 1984,

Considering the appeal of the Economic Commission for Europe to ECE member Governments, contained in its decision B (XXXVIII), to make available, on a basis to be agreed at the first meeting of the Executive Body for the Convention (hereinafter referred to as the "Executive Body"), the financial resources to enable the Executive Body to carry out its activities, in particular as regards the work of EMEP,

Noting that the Convention does not contain any provisions for financing EMEP and that it is, therefore, necessary to make appropriate arrangements regarding this matter,

Considering the elements to guide the drafting of a formal instrument supplementing the Convention, as listed in recommendations adopted by the Executive Body at its first session (7-10 June 1983),

Have agreed as follows:

Article 1

Definitions

For the purposes of the present Protocol:

1. "UN assessment rate" means a Contracting Party's rate for the financial year in question in the scale of assessments for the apportionment of the expenses of the United Nations.

2. "Financial year" means the financial year of the United Nations, and "annual basis" and "annual costs" shall be construed accordingly.

3. "General Trust Fund" means the General Trust Fund for the Financing of the Implementation of the Convention on Long-range Transboundary Air Pollution, which has been established by the Secretary-General of the United Nations.

4. "Geographical scope of EMEP" means the area within which, co-ordinated by the international centres of EMEP, a/ monitoring is carried out.

Article 2

Financing of EMEP

The financing of EMEP shall cover the annual costs of the international centres co-operating within EMEP for the activities appearing in the work programme of the Steering Body of EMEP.

Article 3

Contributions

1. In accordance with the provisions of this article the financing of EMEP shall consist of mandatory contributions, supplemented by voluntary contributions. Contributions may be made in convertible currency, non-convertible currency, or in kind.

2. Mandatory contributions shall he made on an annual basis by all Contracting Parties to the present Protocol which are within the geographical scope of EMEP.

3. Voluntary contributions may be made by the Contracting Parties or Signatories to the present Protocol, even if their territory lies outside the geographical scope of EMEP, as well as, subject to approval by the Executive Body, on the recommendation of the Steering Body of EMEP, by any other country, organization or individual which wishes to contribute to the work programme.

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a/ The international centres are at present: the Chemical Co-ordinating Centre, the Meteorological Synthesizing Centre-East and the Meteorological Synthesizing Centre-West.

4. The annual costs of the work programme shall be covered by the mandatory contributions. Contributions in cash and in kind, such as those provided by host countries for international centres, shall be specified in the work programme. Voluntary contributions may, subject to the approval by the Executive Body, on the recommendation of the Steering Body, be utilized either for reducing the mandatory contributions or for financing specific activities within the scope of EMEP.

5. Mandatory and voluntary contributions in cash shall be deposited in the General Trust Fund.

Article 4

Sharing of costs

1. Mandatory contributions shall be made in accordance with the terms of the Annex to the present Protocol.

2. The Executive Body shall consider the need to amend the Annex:

(a) if the annual budget of EMEP increases by a factor of two and half times the level of the annual budget adopted for the year of entry into force of the present Protocol or for the year of last amendment of the Annex, whichever is later; or

(b) if the Executive Body, on the recommendation of the Steering Body, designates a new international centre; or

(c) six years after the entry into force of the present Protocol, or six years after last amendment to the Annex, whichever is later.

3. Amendments to the Annex shall be adopted by consensus of the Executive Body.

Article 5

Annual budget

An annual budget for EMEP shall be drawn up by the Steering Body of EMEP, and shall be adopted by the Executive Body not later than one year in advance of the financial year to which it applies.

Article 6

Amendments to the protocol

1. Any Contracting Party to the present Protocol may propose amendments to it.

2. The text of proposed amendments shall be submitted in writing to the Executive Secretary of the Economic Commission for Europe, who shall communicate them to all Contracting Parties to the Protocol. The Executive Body shall discuss the proposed amendments at its next annual meeting provided that such proposals have been circulated by the Executive Secretary of the Economic Commission for Europe to the Contracting Parties to the Protocol at least 90 days in advance.

3. An amendment to the present Protocol, other than an amendment to its Annex, shall be adopted by consensus of the representatives of the Contracting Parties to the Protocol and shall enter into force for the Contracting Parties to the Protocol which have accepted it on the ninetieth day after the day on which two-thirds of those Contracting Parties have deposited with the depositary their instruments of acceptance of the amendment. The amendment shall enter into force for any other Contracting Party on the ninetieth day after the date on which that Contracting Party deposits its instrument of acceptance of the amendment.

Article 7

Settlement of disputes

If a dispute arises between two or more Contracting Parties to the present Protocol as to its interpretation or application, they shall seek a solution by negotiation or by any other method of dispute settlement acceptable to the parties to the dispute.

Article 8

Signature

1. The present Protocol shall be open for signature at the United Nations Office in Geneva from 28 September 1984 until 5 October 1984 inclusive, then at the Headquarters of the United Nations in New York until 4 April 1985, by the member States of the Economic Commission for Europe as well as States having consultative status with the Economic Commission for Europe, pursuant to paragraph 8 of Economic and Social Council resolution 36 (IV) of 28 March 1947, and by regional economic integration organizations, constituted by sovereign States members of the Economic Commission for Europe, which have competence in respect of the negotiation, conclusion and application of international agreements in matters covered by the present Protocol, provided that the States and organizations concerned are parties to the Convention.

2. In matters within their competence, such regional economic integration organizations shall, on their own behalf, exercise the rights and fulfil the responsibilities which the present Protocol attributes to their member States. In such cases, the member States of these organizations shall not be entitled to exercise such rights individually.

Article 9

Ratification, acceptance, approval and accession

1. The present Protocol shall be subject to ratification, acceptance or approval by Signatories.

2. The present Protocol shall be open for accession as from 5 October 1984 by the States and Organizations referred to in Article 8, paragraph 1.

3. The instruments of ratification, acceptance, approval or accession shall be deposited with the Secretary-General of the United Nations, who will perform the functions of the depositary.

Article 10

Entry into force

1. The present Protocol shall enter into force on the ninetieth day following the date on which:

(a) instruments of ratification, acceptance, approval or accession have been deposited by at least nineteen States and Organizations referred to in article 8 paragraph 1 which are within the geographical scope of EMEP; and

(b) the aggregate of the UN assessment rates for such States and Organizations exceeds forty per cent.

2. For each State and Organization referred to in article 8, paragraph 1, which ratifies, accepts or approves the present protocol or accedes thereto after the requirements for entry into force laid down in paragraph 1 above have been met, the Protocol shall enter into force on the ninetieth day after the date of deposit by such State or Organization of its instrument of ratification, acceptance, approval or accession.

Article 11

Withdrawal

1. At any time after five years from the date on which the present Protocol has come into force with respect to a Contracting Party, that Contracting Party may withdraw from it by giving written notification to the depositary. Any such withdrawal shall take effect on the ninetieth day after the date of its receipt by the depositary.

2. Withdrawal shall not affect the financial obligations of the withdrawing Party until the date on which the withdrawal takes effect.

Article 12

Authentic texts

The original of the present Protocol, of which the English, French and Russian texts are equally authentic, shall be deposited with the Secretary-General of the United Nations.

In witness whereof the undersigned, being duly authorized thereto, have signed the present Protocol.

Done at Geneva, this twenty-eighth day of September one thousand nine hundred and eighty-four.

Annex referred to in article 4 of the Protocol to the 1979 Convention on Long-range Transboundary Air Pollution on Long-term Financing of the Co-operative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe (EMEP)

Mandatory contributions for sharing of costs for financing the Co-operative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe (EMEP), shall be calculated according to the following scale:

	%
Austria	1.59
Bulgaria	0.35
Byelorussian SSR	0.71
Czechoslovakia	1.54
Finland	1.07
German Democratic Republic	2.74
Holy See	0.02
Hungary	0.45
Iceland	0.06
Liechtenstein	0.02
Norway	1.13
Poland	1.42
Portugal	0.30
Romania	0.37
San Marino	0.02
Spain	3.54
Sweden	2.66
Switzerland	2.26
Turkey	0.60
Ukrainian SSR	2.60
USSR	20.78
Yugoslavia	0.60

Member countries of the European Economic Community:

Belgium	2.36
Denmark	1.38
France	11.99
Germany, Federal Republic of	15.73
Greece	1.00
Ireland	0.50
Italy	6.89
Luxembourg	0.10
Netherlands	3.28
United Kingdom	8.61
EEC	3.33
TOTAL	100.00

The order in which the Contracting Parties are listed in this Annex is specifically made in relation to the cost-sharing system agreed upon by the Executive Body for the Convention. Accordingly, the listing is a feature which is specific to the Protocol on the financing of EMEP.

Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution on the Reduction of Sulphur Emissions or Their Transboundary Fluxes by at Least 30 Per Cent, Helsinki, 1985

Done at Helsinki 8 July 1985

*Entered into force 2 September 1987**

Primary source citation: Copy of text provided by the United Nations

PROTOCOL TO THE 1979 CONVENTION ON LONG-RANGE TRANSBOUNDARY AIR POLLUTION ON THE REDUCTION OF SULPHUR EMISSIONS OR THEIR TRANSBOUNDARY FLUXES BY AT LEAST 30 PER CENT

The Parties

Determined to implement the Convention on Long-range Transboundary Air Pollution,

Concerned that the present emissions of air pollutants are causing widespread damage, in exposed parts of Europe and North America, to natural resources of vital environmental and economic importance, such as forests, soils and waters, and to materials (including historical monuments) and, under certain circumstances, have harmful effects on human health,

Aware of the fact that the predominant sources of air pollution contributing to the acidification of the environment are the combustion of fossil fuels for energy production, and the main technological processes in various industrial sectors, as well as transport, which lead to emissions of sulphur dioxide, nitrogen oxides, and other pollutants,

Considering that high priority should be given to reducing sulphur emissions, which will have positive results environmentally, on the over-all economic situation and on human health,

Recalling the decision of the United Nations Economic Commission for Europe (ECE) at its thirty-ninth session, which stresses the urgency of intensifying efforts to arrive at co-ordinated national strategies and policies in the ECE region to reduce sulphur emissions effectively at national levels,

* This Protocol is not in force for the United States.

Recalling the recognition by the Executive Body for the Convention at its first session of the need to decrease effectively the total annual emissions of sulphur compounds or their transboundary fluxes by 1993-1995, using 1980 levels as the basis for calculations of reductions,

Recalling that the Multilateral Conference on the Causes and Prevention of Damage to Forests and Water by Air Pollution in Europe (Munich, 24-27 June 1984) had requested that the Executive Body for the Convention, as a matter of highest priority, adopt a proposal for a specific agreement on the reduction of annual national sulphur emissions or their transboundary fluxes by 1993 at the latest,

Noting that a number of Contracting Parties to the Convention have decided to implement reductions of their national annual sulphur emissions or their transboundary fluxes by at least 30 per cent as soon as possible and at the latest by 1993, using 1980 levels as the basis for calculation of reductions,

Recognizing, on the other hand, that some Contracting Parties to the Convention, while not signing the present Protocol at the time of its opening for signature, will nevertheless contribute significantly to the reduction of transboundary air pollution, or will continue to make efforts to control sulphur emissions, as stated in the document annexed to the report of the Executive Body at its third session,

Have agreed as follows:

Article 1

Definitions

For the purposes of the present Protocol,

1. "Convention" means the Convention on Long-range Transboundary Air Pollution, adopted in Geneva on 13 November 1979;

2. "EMEP" means the Co-operative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe;

3. "Executive Body" means the Executive Body for the Convention constituted under article 10, paragraph 1 of the Convention;

4. "Geographical scope of EMEP" means the area defined in article 1, paragraph 4 of the Protocol to the 1979 Convention on Long-range Transboundary Air Pollution on Long-term Financing of the Co-operative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe (EMEP), adopted in Geneva on 28 September 1984;

5. "Parties" means, unless the context otherwise requires, the Parties to the present Protocol.

Article 2

Basic provision

The Parties shall reduce their national annual sulphur emissions or their transboundary fluxes by at least 30 per cent as soon as possible and at the latest by 1993, using 1980 levels as the basis for calculation of reductions.

Article 3

Further reductions

The Parties recognize the need for each of them to study at the national level the necessity for further reductions, beyond those referred to in article 2, of sulphur emissions or their transboundary fluxes when environmental conditions warrant.

Article 4

Reporting of annual emissions

Each Party shall provide annually to the Executive Body its levels of national annual sulphur emissions, and the basis upon which they have been calculated.

Article 5

Calculations of transboundary fluxes

EMEP shall in good time before the annual meetings of the Executive Body provide to the Executive Body calculations of sulphur budgets and also of transboundary fluxes and depositions of sulphur compounds for each previous year within the geographical scope of EMEP, utilizing appropriate models. In areas outside the geographical scope of EMEP, models appropriate to the particular circumstances of Parties therein shall be used.

Article 6

Rational programmes, policies and strategies

The Parties shall, within the framework of the Convention, develop without undue delay national programmes, policies and strategies which shall serve as a means of reducing sulphur emissions or their transboundary fluxes, by at least 30 per cent as soon as possible and at the latest by 1993, and shall report thereon as well as on progress towards achieving the goal to the Executive Body.

Article 7

Amendments to the Protocol

1. Any party may propose amendments to the present Protocol.

2. Proposed amendments shall be submitted in writing to the Executive Secretary of the Economic Commission for Europe who shall communicate them to all Parties. The Executive Body shall discuss the proposed amendments at its next annual meeting provided that such proposals have been circulated by the Executive Secretary of the Economic Commission for Europe to the Parties at least 90 days in advance.

3. An amendment to the present Protocol shall be adopted by consensus of the representatives of the Parties, and shall enter into force for the Parties which have accepted it on the ninetieth day after the date on which two thirds of the Parties have deposited their instruments of acceptance of the amendment. The amendment shall enter into force for any other Party on the ninetieth day after the date on which that Party deposits its instrument of acceptance of the amendment.

Article 8

Settlement of disputes

If a dispute arises between two or more Parties as to the interpretation or application of the present Protocol, they shall seek a solution by negotiation or by any other method of dispute settlement acceptable to the parties to the dispute.

Article 9

Signature

1. The present Protocol shall be open for signature at Helsinki (Finland) from 8 July 1985 until 12 July 1985 inclusive, by the member States of the Economic Commission for Europe as well as States having consultative status with the Economic Commission for Europe, pursuant to paragraph 8 of Economic and Social Council resolution 36 (IV) of 28 March 1947, and by regional economic integration organizations, constituted by sovereign States members of the Economic Commission for Europe, which have competence in respect of the negotiation, conclusion and application of international agreements in matters covered by the present Protocol, provided that the States and organizations concerned are Parties to the Convention.

2. In matters within their competence, such regional economic integration organizations shall, on their own behalf, exercise the rights and fulfil the responsibilities which the present Protocol attributes to their member States. In such cases, the member States of these organizations shall not be entitled to exercise such rights individually.

Article 10

Ratification, acceptance, approval and accession

1. The present Protocol shall be subject to ratification, acceptance or approval by Signatories.

2. The present Protocol shall be open for accession as from 13 July 1985 by the States and organizations referred to in article 9, paragraph 1.

3. A State or organization acceding to the present Protocol after its entry into force shall implement Article 2 at the latest by 1993. However, if the Protocol is acceded to after 1990, Article 2 may be implemented later than 1993 by the Party concerned but not later than 1995, and such a Party shall implement Article 6 correspondingly.

4. The instruments of ratification, acceptance, approval or accession shall be deposited with the Secretary-General of the United Nations, who will perform the functions of depositary.

Article 11

Entry into force

1. The present Protocol shall enter into force on the ninetieth day following the date on which the sixteenth instrument of ratification, acceptance, approval or accession has been deposited.

2. For each State and organization referred to in article 9, paragraph 1, which ratifies, accepts or approves the present Protocol or accedes thereto after the deposit of the sixteenth instrument of ratification, acceptance, approval, or accession, the Protocol shall enter into force on the ninetieth day after the date of deposit by such Party of its instrument of ratification, acceptance, approval, or accession.

Article 12

Withdrawal

At any time after five years from the date on which the present Protocol has come into force with respect to a Party, that Party may withdraw from it by giving written notification to the depositary. Any such withdrawal shall take effect on the ninetieth day after the date of its receipt by the depositary.

Article 13

Authentic texts

The original of the present Protocol, of which the English, French and Russian texts are equally authentic, shall be deposited with the Secretary-General of the United Nations.

IN WITNESS WHEREOF the undersigned, being duly authorized thereto, have signed the present Protocol.

DONE at Helsinki this eighth day of July one thousand nine hundred and eighty-five.

Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution Concerning the Control of Emissions of Nitrogen Oxides or Their Transboundary Fluxes, Sofia, 1988

Done at Sofia 31 October 1988

Entered into force 14 February 1991

Primary source citation: 28 ILM 212 (1989)

PROTOCOL TO THE 1979 CONVENTION ON LONG-RANGE TRANSBOUNDARY AIR POLLUTION CONCERNING THE CONTROL OF EMISSIONS OF NITROGEN OXIDES OR THEIR TRANSBOUNDARY FLUXES

The Parties,

Determined to implement the Convention on Long-range Transboundary Air Pollution,

Concerned that present emissions of air pollutants are causing damage, in exposed parts of Europe and North America, to natural resources of vital environmental and economic importance,

Recalling that the Executive Body for the Convention recognized at its second session the need to reduce effectively the total annual emissions of nitrogen oxides from stationary and mobile sources or their transboundary fluxes by 1995, and the need on the part of other States that had already made progress in reducing these emissions to maintain and review their emission standards for nitrogen oxides,

Taking into consideration existing scientific and technical data on emissions, atmospheric movements and effects on the environment of nitrogen oxides and their secondary products, as well as on control technologies,

Conscious that the adverse environmental effects of emissions of nitrogen oxides vary among countries,

Determined to take effective action to control and reduce national annual emissions of nitrogen oxides or their transboundary fluxes by, in particular, the application of appropriate national emission standards to new mobile and major new stationary sources and the retrofitting of existing major stationary sources,

Recognizing that scientific and technical knowledge of these matters is developing and that it will be necessary to take such developments into account when reviewing the operation of this Protocol and deciding on further action,

Noting that the elaboration of an approach based on critical loads is aimed at the establishment of an effect-oriented scientific basis to be taken into account when reviewing the operation of this Protocol and at deciding on further internationally agreed measures to limit and reduce emissions of nitrogen oxides or their transboundary fluxes,

Recognizing that the expeditious consideration of procedures to create more favourable conditions for exchange of technology will contribute to the effective reduction of emissions of nitrogen oxides in the region of the Commission,

Noting with appreciation the mutual commitment undertaken by several countries to implement immediate and substantial reductions of national annual emissions of nitrogen oxides,

Acknowledging the measures already taken by some countries which have had the effect of reducing emissions of nitrogen oxides,

Have agreed as follows:

Article 1

Definitions

For the purposes of the present Protocol,

1. "Convention" means the Convention on Long-range Transboundary Air pollution, adopted in Geneva on 13 November, 1979;

2. "EMEP" means the Co-operative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe;

3. "Executive Body" means the Executive Body for the Convention constituted under article 10, paragraph 1 of the Convention;

4. "Geographical scope of EMEP" means the area defined in article 1, paragraph 4 of the Protocol to the 1979 Convention on Long-range Transboundary Air Pollution on Long-term Financing of the Co-operative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe (EMEP), adopted in Geneva on 28 September 1984;

5. "Parties" means, unless the context otherwise requires, the Parties to the present Protocol;

6. "Commission" means the United Nations Economic Commission for Europe;

7. "Critical load" means a quantitative estimate of the exposure to one or more pollutants below which significant harmful effects on specified sensitive elements of the environment do not occur according to present knowledge;

8. "Major existing stationary source" means any existing stationary source the thermal input of which is at least 100 MW;

9. "Major new stationary source" means any new stationary source the thermal input of which is at least 50 MW;

10. "Major source category" means any category of sources which emit or may emit air pollutants in the form of nitrogen oxides, including the categories described in the Technical Annex, and which contribute at least 10 per cent of the total national emissions of nitrogen oxides on an annual basis as measured or calculated in the first calendar year after the date of entry into force of the present Protocol, and every fourth year thereafter;

11. "New stationary source" means any stationary source the construction or substantial modification of which is commenced after the expiration of two years from the date of entry into force of this Protocol;

12. "New mobile source" means a motor vehicle or other mobile source which is manufactured after the expiration of two years from the date of entry into force of the present Protocol.

Article 2

Basic obligations

1. The parties shall, as soon as possible and as a first step, take effective measures to control and/or reduce their national annual emissions of nitrogen oxides or their transboundary fluxes so that these, at the latest by 31 December 1994, do not exceed their national annual emissions of nitrogen oxides or transboundary fluxes of such emissions for the calendar year 1987 or any previous year to be specified upon signature of, or accession to, the Protocol, provided that in addition, with respect to any Party specifying such a previous year, its national average annual transboundary fluxes or national average annual emissions of nitrogen oxides for the period from 1 January 1987 to 1 January 1996 do not exceed its transboundary fluxes or national emissions for the calendar year 1987.

2. Furthermore, the Parties shall in particular, and no later than two years after the date of entry into force of the present Protocol:

(a) Apply national emissions standards to major new stationary sources and/or source categories, and to substantially modified stationary sources in major source categories, based on the best available technologies which are economically feasible, taking into consideration the Technical Annex;

(b) Apply national emission standards to new mobile sources in all major source categories based on the best available technologies which are economically feasible, taking into consideration the Technical Annex and the relevant decisions taken within the framework of the Inland Transport Committee of the Commission; and

(c) Introduce pollution control measures for major existing stationary sources, taking into consideration the Technical Annex and the characteristics of the plant, its age and its rate of utilization and the need to avoid undue operational disruption.

3. (a) The Parties shall, as a second step, commence negotiations, no later than six months after the date of entry into force of the present Protocol, on further steps to reduce national annual emissions of nitrogen oxides or transboundary fluxes of such emissions, taking into account the best available scientific and technological developments, internationally accepted critical loads and other elements resulting from the work programme undertaken under article 6.

(b) To this end, the Parties shall co-operate in order to establish:

(i) Critical loads;

(ii) Reductions in national annual emissions of nitrogen oxides or transboundary fluxes of such emissions as required to achieve agreed objectives based on critical loads; and

(iii) Measures and a time-table commencing no later than 1 January 1996 for achieving such reductions.

4. Parties may take more stringent measures than those required by the present article.

Article 3

Exchange of technology

1. The Parties shall, consistent with their national laws, regulations and practices, facilitate the exchange of technology to reduce emissions of nitrogen oxides, particularly through the promotion of:

(a) Commercial exchange of available technology;

(b) Direct industrial contacts and co-operation, including joint ventures;

(c) Exchange of information and experience; and

(d) Provision of technical assistance.

2. In promoting the activities specified in subparagraphs (a) to (d) above, the Parties shall create favourable conditions by facilitating contacts and co-operation among appropriate organizations and individuals in the private and public sectors that are capable of providing technology, design and engineering services, equipment or finance.

3. The Parties shall, no later than six months after the date of entry into force of the present Protocol, commence consideration of procedures to create more favourable conditions for the exchange of technology to reduce emissions of nitrogen oxides.

Article 4

Unleaded fuel

The Parties shall, as soon as possible and no later than two years after the date of entry into force of the present Protocol, make unleaded fuel sufficiently available, in particular cases as a minimum along main international transit routes, to facilitate the circulation of vehicles equipped with catalytic converters.

Article 5

Review process

1. The Parties shall regularly review the present Protocol, taking into account the best available scientific substantiation and technological development.

2. The first review shall take place no later than one year after the date of entry into force of the present Protocol.

Article 6

Work to be undertaken

The Parties shall give high priority to research and monitoring related to the development and application of an approach based on critical loads to determine, on a scientific basis, necessary reductions in emissions of nitrogen oxides. The Parties shall, in particular, through national research programmes, in the work plan of the Executive Body and through other co-operative programmes within the framework of the Convention, seek to:

(a) Identify and quantify effects of emissions of nitrogen oxides on humans, plant and animal life, waters, soils and materials, taking into account the impact on these of nitrogen oxides from sources other than atmospheric deposition;

(b) Determine the geographical distribution of sensitive areas;

(c) Develop measurements and model calculations including harmonized methodologies for the calculation of emissions, to quantify the long-range transport of nitrogen oxides and related pollutants;

(d) Improve estimates of tie performance and costs of technologies for control of emissions of nitrogen oxides and record the development of improved and new technologies; and

(e) Develop, in the context of an approach based on critical loads, methods to integrate scientific, technical and economic data in order to determine appropriate control strategies.

Article 7

National programmes, policies and strategies

The Parties shall develop without undue delay national programmes, policies and strategies to implement the obligations under the present Protocol that shall serve as a means of controlling and reducing emissions of nitrogen oxides or their transboundary fluxes.

Article 8

Information exchange and annual reporting

1. The Parties shall exchange information by notifying the Executive Body of the national programmes, policies and strategies that they develop in accordance with article 7 and by reporting to it annually on progress achieved under, and any changes to, those programmes, policies and strategies, and in particular on:

(a) The levels of national annual emissions of nitrogen oxides and the basis upon which they have been calculated;

(b) Progress in applying national emission standards required under article 2, subparagraphs 2 (a) and 2 (b), and the national emission standards applied or to be applied, and the sources and/or source categories concerned;

(c) Progress in introducing the pollution control measures required under article 2, subparagraph 2 (c), the sources concerned and the measures introduced or to be introduced;

(d) Progress in making unleaded fuel available;

(e) Measures taken to facilitate the exchange of technology; and

(f) Progress in establishing critical loads.

2. Such information shall, as far as possible, be submitted in accordance with a uniform reporting framework.

Article 9

Calculations

EMEP shall, utilizing appropriate models and in good time before the annual meetings of the Executive Body, provide to the Executive Body calculations of nitrogen budgets and also of transboundary fluxes and deposition of nitrogen oxides within the geographical scope of EMEP. In areas outside the geographical scope of EMEP, models appropriate to the particular circumstances of Parties to the Convention therein shall be used.

Article 10

Technical Annex

The Technical Annex to the present Protocol is recommendatory in character. It shall form an integral part of the Protocol.

Article 11

Amendments to the Protocol

1. Any Party may propose amendments to the present Protocol.

2. Proposed amendments shall be submitted in writing to the Executive Secretary of the Commission who shall communicate them to all Parties. The Executive Body shall discuss the proposed amendments at its next annual meeting provided that these proposals have been circulated by the Executive Secretary to the Parties at least ninety days in advance.

3. Amendments to the Protocol, other than amendments to its Technical Annex, shall be adopted by consensus of the Parties present at a meeting of the Executive Body, and shall enter into force for the Parties which have accepted them on the ninetieth day after the date on which two-thirds of the Parties have deposited their instruments of acceptance thereof. Amendments shall enter into force for any Party which has accepted them after two-thirds of the Parties have deposited their instruments of acceptance of the amendment, on the ninetieth day after the date on which that Party deposited its instrument of acceptance of the amendments.

4. Amendments to the Technical Annex shall be adopted by consensus of the Parties present at a meeting of the Executive Body and shall become effective thirty days after the date on which they have been communicated in accordance with paragraph 5 below.

5. Amendments under paragraphs 3 and 4 above shall, as soon as possible after their adoption, be communicated by the Executive Secretary to all Parties.

Article 12

Settlement of disputes

If a dispute arises between two or more Parties as to the interpretation or application of the present Protocol, they shall seek a solution by negotiation or by any other method of dispute settlement acceptable to the parties to the dispute.

Article 13

Signature

1. The present Protocol shall be open for signature at Sofia from 1 November 1988 until 4 November 1988 inclusive, then at the Headquarters of the United Nations in New York until 5 May 1989, by the member States of the Commission as well as States having consultative status with the Commission, pursuant to paragraph 8 of Economic and Social Council resolutions 36 (IV) of 28 March 1947, and by regional economic integration organizations, constituted by sovereign States members of the Commission, which have competence in respect of the negotiation, conclusion and application of international agreements in matters covered by the Protocol, provided that the States and organizations concerned are Parties to the convention.

2. In matters within their competence, such regional economic integration organizations shall, on their own behalf, exercise the rights and fulfil the responsibilities which the present Protocol attributes to their member States. In such cases, the member States of these organizations shall not be entitled to exercise such rights individually.

Article 14

Ratification, acceptance, approval and accession

1. The present Protocol shall be subject to ratification, acceptance or approval by Signatories.

2. The present Protocol shall be open for accession as from 5 May 1989 by the States and organizations referred to in article 13, paragraph 1.

3. A State or organization which accedes to the present Protocol after 31 December 1993 may implement articles 2 and 4 no later than 31 December 1995.

4. The instruments of ratification, acceptance, approval or accession shall be deposited with the Secretary-General of the United Nations, who will perform the functions of depositary.

Article 15

Entry into force

1. The present Protocol shall enter into force on the ninetieth day following the date on which the sixteenth instrument of ratification, acceptance, approval or accession has been deposited.

2. For each State and organization referred to in article 13, paragraph 1, which ratifies, accepts or approves the present Protocol or accedes thereto after the deposit of the sixteenth instrument of ratification, acceptance, approval, or accession, the Protocol shall enter into force on the ninetieth day following the date of deposit by such Party of its instrument of ratification, acceptance, approval, or accession.

Article 16

Withdrawal

At any time after five years from the date on which the present Protocol has come into force with respect to a Party, that Party may withdraw from it by giving written notification to the depositary. Any such withdrawal shall take effect on the ninetieth day following the date of its receipt by the depositary, or on such later date as may be specified in the notification of the withdrawal.

Article 17

Authentic texts

The original of the present Protocol, of which the English, French and Russian texts are equally authentic, shall be deposited with the Secretary-General of the United Nations.

IN WITNESS WHEREOF the undersigned, being duly authorized thereto, have signed the present Protocol.

DONE at Sofia this thirty-first day of October one thousand nine hundred and eighty-eight.

TECHNICAL ANNEX

1. Information regarding emission performance and costs is based on official documentation of the Executive Body and its subsidiary bodies, in particular documents EB.AIR/WG.3/R.8, R.9 and R.16, and ENV/WP.1/R.86, and Corr.1, as reproduced in chapter 7 of Effects and Control of Transboundary Air Pollution. */ Unless otherwise indicated, the technologies listed are considered to be well established on the basis of operational experience. **/

2. The information contained in this annex is incomplete. Because experience with new engines and new plants incorporating low emission technology, as well as with retrofitting existing plants, is continuously expanding, regular

*/ Air Pollution Studies No. 4 (United Nations publication, Sales No. E.87.II.E.36).

**/ It is at present difficult to provide reliable data on the costs of control technologies in absolute terms. For cost data included in the present annex, emphasis should therefore be placed on the relationships between the costs of different technologies rather than on absolute cost figures.

elaboration and amendment of the annex will be necessary. The annex cannot be an exhaustive statement of technical options; its aim is to provide guidance for the Parties in identifying economically feasible technologies for giving effect to the obligations of the Protocol.

I. CONTROL TECHNOLOGIES FOR NO_x EMISSIONS FROM STATIONARY SOURCES

3. Fossil fuel combustion is the main stationary source of anthropogenic NO_x emissions. In addition, some non-combustion processes can contribute relevant NO_x emissions.

4. Major stationary source categories of NO_x emissions may include:

(a) Combustion plants;

(b) Industrial process furnaces (e.g., cement manufacture);

(c) Stationary gas turbines and internal combustion engines; and

(d) Non-combustion processes (e.g., nitric acid production).

5. Technologies for the reduction of NO_x emissions focus on certain combustion/process modifications, and, especially for large power plants, on flue gas treatment.

6. For retrofitting of existing plants, the extent of application of low-NO_x technologies may be limited by negative operational side-effects or by other site-specific constraints. In the case of retrofitting, therefore, only approximate estimates are given for typically achievable NO_x emission values. For new plants, negative side-effects can be minimized or excluded by appropriate design features.

7. According to currently available data, the costs of combustion modifications can be considered as small for new plants. However, in the case of retrofitting, for instance at large power plants, they ranged from about 8 to 25 Swiss francs per kW_{el} (in 1985). As a rule, investment costs of flue gas treatment systems are considerably higher.

8. For stationary sources, emission factors are expressed in milligrams of NO_2 per normal (0° C, 1013 mb) cubic metre (mg/m^3), dry basis.

Combustion plants

9. The category of combustion plants comprises fossil fuel combustion in furnaces, boilers, indirect heaters and other combustion facilities with a heat input larger than 10 MW, without mixing the combustion flue gases with other effluents or treated materials. The following combustion technologies, either singly or in combination, are available for new and existing installations:

(a) Low-temperature design of the firebox, including fluidized bed combustion;

(b) Low excess-air operation;

(c) Installation of special low-NO_x burners;

(d) Flue gas recirculation into the combustion air;

(e) Staged combustion/overfire-air operations; and,

(f) Reburning (fuel staging). ***/

Performance standards that can be achieved are summarized in table 1.

***/ There is limited operational experience of this type of combustion technology.

Table 1: NO_x performance standards (mg/m^3) that can be achieved by combustion modification

Plant type a/			Uncontrolled baseline	Existing plant retrofit b/		New plant	O_2 %
				Range	Typical value		
Solid Fuels	10 MW c/ to 300 MW	Grate Combustion (coal)	300 – 1 000	–	600	400	7
		Fluidized Bed Combustion					
		(i) stationary	300 – 600	–	–	400	7
		(ii) circulating	150 – 300	–	–	200	7
		Pulverized Coal Combustion					
		(i) dry bottom	700 – 1 700	600 – 1 100	800	< 600	6
		(ii) wet bottom	1 000 – 2 300	1 000 – 1 400	–	< 1 000	6
	>300 MW	Pulverized Coal Combustion					
		(i) dry bottom	700 – 1 700	600 – 1 100	–	< 600	6
		(ii) wet bottom	1 000 – 2 300	1 000 – 1 400	–	< 1 000	6
Liquid Fuels	10 MW c/ to 300 MW	Distillate Oil Combustion	–	–	300	–	3
		Residual Oil Combustion	500 – 1 400	200 – 400	400	–	3
	>300 MW	Residual Oil Combustion	500 – 1 400	200 – 400	–	–	3
Gaseous Fuels	10 MW c/ to 300 MW		150 – 1 000	100 – 300	–	< 300	3
	>300 MW		250 – 1 400	100 – 300	–	< 300	3

a/ Capacity numbers refer to MW (thermal) heat input by fuel (lower heating value).

b/ Only approximate values can be given due to site specific factors and greater uncertainty for retrofitting of existing plant.

c/ For small (10 MW - 100 MW) plants a greater degree of uncertainty applies to all figures given.

10. Flue gas treatment by selective catalytic reduction (SCR) is an additional NO_x emission reduction measure with efficiencies of up to 80 per cent and more. Considerable operational experience from new and retrofitted installations is now being obtained within the region of the Commission, in particular for power plants larger than 300 MW (thermal). When combined with combustion modifications, emission values of 200 mg/m^3 (solid fuels, 6% O_2) and 150 mg/m^3 (liquid fuels, 3% O_2) can be easily met.

11. Selective non-catalytic reduction (SNCR), a flue gas treatment for a 20–60% NO_x reduction, is a cheaper technology for special applications (e.g., refinery furnaces and base load gas combustion).

Stationary gas turbines and internal combustion (IC) engines

12. NO_x emissions from stationary gas turbines can be reduced either by combustion modification (dry control) or by water/steam injection (wet control). Both measures are well established. By these means, emission values of 150 mg/m^3 (gas, 15% O_2) and 300 mg/m^3 (oil, 15% O_2) can be met. Retrofit is possible.

13. NO_x emissions from stationary spark ignition IC engines can be reduced either by combustion modifications (e.g., lean-burn and exhaust gas recirculation concepts) or by flue gas treatment (closed-loop 3-way catalytic converter, SCR). The technical and economic feasibility of these various processes depends on engine size, engine type (two stroke/four stroke), and engine operation mode (constant/varying load). The lean-burn concept is capable of meeting NO_x emission values of 800 mg/m^3 (5% O_2), the SCR process reduces NO_x emissions well below 400 mg/m^3 (5% O_2), and the three-way catalytic converter reduces such emissions even below 200 mg/m^3 (5% O_2).

Industrial process furnaces - Cement calcination

14. The precalcination process is being evaluated within the region of the Commission as a possible technology with the potential for reducing NO_x concentrations in the flue gas of new and existing cement calcination furnaces to about 300 mg/m^3 (10% O_2).

Non-combustion processes - Nitric acid production

15. Nitric acid production with a high pressure absorption (>8 bar) is capable of keeping NO_x concentrations in undiluted effluents below 400 mg/m^3. The same emission performance can be met by medium pressure absorption in combination with a SCR process or any other similar efficient NO_x reduction process. Retrofit is possible.

II. CONTROL TECHNOLOGIES FOR NO_x EMISSIONS FROM MOTOR VEHICLES

16. The motor vehicles considered in this annex are those used for road transport, namely: petrol-fuelled and diesel-fuelled passenger cars, light-duty vehicles and heavy-duty vehicles. Appropriate reference is made, as necessary, to the specific vehicle categories (M_1, M_2, M_3, N_1, N_2, N_3) defined in ECE Regulation No. 13 pursuant to the 1958 Agreement concerning the Adoption of Uniform Conditions of Approval and Reciprocal Recognition of Approval for Motor Vehicles Equipment and Parts.

17. Road transport is a major source of anthropogenic NO_x emission in many Commission countries, contributing between 40 and 80 per cent of total national emissions. Typically, petrol-fuelled vehicles contribute two-thirds of total road transport NO_x emissions.

18. The technologies available for the control of nitrogen oxides from motor vehicles are summarized in tables 3 and 6. It is convenient to group the technologies by reference to existing or proposed national and international emission standards differing in stringency of control. Because current regulatory test cycles only reflect urban and metropolitan driving, the estimates of relative NO_x emissions given below take account of higher speed driving where NO_x emissions can be particularly important.

19. The additional production cost figures for the various technologies given in tables 3 and 6 are manufacturing cost estimates rather than retail prices.

20. Control of production conformity and in-use vehicle performance is important in ensuring that the reduction potential of emission standards is achieved in practice.

21. Technologies that incorporate or are based on the use of catalytic converters require unleaded fuel. Free circulation of vehicles equipped with catalytic converters depends on the general availability of unleaded petrol.

Petrol-fuelled and diesel-fuelled passenger cars (M_1)

22. In table 2, four emission standards are summarized. These are used in table 3 to group the various engine technologies for petrol vehicles according to their NO_x emission reduction potential.

Table 2. Definition of emission standards

Standard	Limits	Comments
A. ECE R.15-04	HC + NO_x: 19–28 g/test	Current ECE standard (Regulation No.15, including the 04 series of amendments, pursuant to the 1958 Agreement referred to in paragraph 16 above), also adopted by the European Economic Community (Directive 83/351/EEC). ECE R.15 urban test cycle. Emission limit varies with vehicle mass.
B."Luxembourg 1985"	HC + NO_x: 1.4–2.0 l : 8.0 g/test This standard only used to group technology (<1.4 l : 15.0 g/test, >2.0 l : 6.5 g/test)	Standards to be introduced during 1988–1993 in the European Economic Community, as discussed at the 1985 Luxembourg meeting of EEC Council of Ministers and finally agreed upon in December 1987. ECE R.15 urban test cycle applies. Standard for engines >2 l is generally equivalent to US 1983 standard. Standard for engines <1.4 l is provisional, definite standard to be elaborated. Standard for engines of 1.4–2.0 applies to all diesel cars >1.4 l.
C."Stockholm 1985"		Standards for national legislation based on the "master document" developed after the 1985 Stockholm meeting of Environment Ministers from eight countries. Matching US 1987 standards, with the following test procedures:
	NO_x: 0.62 g/km	US Federal Test Procedure (1975).
	NO_x: 0.76 g/km	Highway fuel economy test procedure.
D."California 1989"	NO_x: 0.25 g/km	Standards to be introduced in the State of California, United States from 1989 models onwards. US Federal Test Procedure.

Table 3. Petrol engine technologies, emission performance, costs and fuel consumption for emission standard levels

Standard	Technology	Composite a/ NO_x reduction (%)	Additional b/ production cost (1986 Swiss francs)	Fuel consumption index a/
A.	Baseline (Current conventional spark-ignition engine with carburettor)	- c/	-	100
B.				
	(a) Fuel injection + EGR + secondary air d/	25	200	105
	(b) Open-loop three-way catalyst (+EGR)	55	150	103
	(c) Lean-burn engine with oxidation catalyst (+EGR) e/	60	200-600	90
C.	Closed-loop three-way catalyst	90	300-600	95
D.	Closed-loop three-way catalyst (+ EGR)	92	350-650	98

a/ Composite NO_x reduction and fuel consumption index estimates are for an average-weight European car operating under average European driving conditions.

b/ Additional production costs could be more realistically expressed as a percentage of the total car cost. However, since cost estimates are primarily for comparison in relative terms only, the formulation of the original documents has been retained.

c/ Composite NO_x emission factor = 2.6 g/km.

d/ "EGR" means exhaust gas recirculation.

e/ Based entirely on data for experimental engines. Virtually no production of lean-burn engined vehicles exists.

23. The emission standards A, B, C and D include limits on hydrocarbon (HC) and carbon monoxide (CO) emissions as well as NO_x. Estimates of emission reductions for these pollutants, relative to the baseline ECE R.15–04 case, are given in table 4.

Table 4: Estimated reductions in HC and CO emissions from petrol-fuelled passenger cars for different technologies

Standard	HC-reduction %		Co-reduction (%)
B.	(a)	30–40	50
	(b)	50–60	40–50
	(c)	70–90	70–90
C.		90	90
D.		90	90

24. Current diesel cars can meet the NO_x emission requirements of standards A, B and C. Strict particulate emission requirements, together with the stringent NO_x limits of standard D, imply that diesel passenger cars will require further development, probably including electronic control of the fuel pump, advanced fuel injection systems, exhaust gas recirculation and particulate traps. Only experimental vehicles exist to date. (See also table 6, footnote a/).

Other light-duty vehicles (N_1)

25. The control methods for passenger cars are applicable but NO_x reductions, costs and commercial lead time factors may differ.

Heavy-duty petrol-fuelled vehicles (M_2, M_3, N_2, N_3)

26. This class of vehicle is insignificant in western Europe and is decreasing in eastern Europe. US 1990 and US 1991 NO_x emission levels (see table 5) could be achieved at modest cost without significant technology advancement.

Heavy-duty diesel-fuelled vehicles (M_2, M_3, N_2, N_3)

27. In table 5, three emission standards are summarized. These are used in table 6 to group engine technologies for heavy-duty diesel vehicles according to NO_x reduction potential. The baseline engine configuration is changing, with a trend away from naturally aspirated to turbo-charged engines. This trend has implications for improved baseline fuel consumption performance. Comparative estimates of consumption are therefore not included.

Table 5: Definition of emission standards

Standard	NO_x limits (g/kWh)	Comments
I ECE R.49	18	13 mode test
II US-1990	8.0	Transient test
III US-1991	6.7	Transient test

Table 6: Heavy-duty diesel engine technologies, emission performance, a/ and costs for emission standard levels

Standard	Technology	NO_x reduction estimate (%)	Additional production cost (1984 US$)
I	Current conventional direct injection diesel engine	–	–
II b/	Turbo-charging + after-cooling + injection timing retard (Combustion chamber and port modification) (Naturally-aspirated engines are unlikely to meet this standard)	40	$115 ($69 attributable to NO_x standard) c/
III b/	Further refinements of technologies listed under II together with variable injection timing and use of electronics	50	$404 ($68 attributable to NO_x standard) c/

a/ Deterioration in diesel fuel quality would adversely affect emission and may affect fuel consumption for both heavy and light duty vehicles.

b/ It is still necessary to verify on a large scale the availability of new components.

c/ Particulate control and other considerations account for the balance.

Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution Concerning the Control of Emissions of Volatile Organic Compounds or Their Transboundary Fluxes, Geneva, 1991

Done at Geneva 18 November 1991

Not in force

Primary source citation: Copy of text provided by the United Nations

PROTOCOL TO THE 1979 CONVENTION ON LONG-RANGE TRANSBOUNDARY AIR POLLUTION CONCERNING THE CONTROL OF EMISSIONS OF VOLATILE ORGANIC COMPOUNDS OR THEIR TRANSBOUNDARY FLUXES

The Parties,

Determined to implement the Convention on Long-range Transboundary Air Pollution,

Concerned that present emissions of volatile organic compounds (VOCs) and the resulting secondary photochemical oxidant products are causing damage, in exposed parts of Europe and North America, to natural resources of vital environmental and economic importance and, under certain exposure conditions, have harmful effects on human health,

Noting that under the Protocol concerning the Control of Emissions of Nitrogen Oxides or their Transboundary Fluxes, adopted in Sofia on 31 October 1988, there is already agreement to reduce emissions of oxides of nitrogen,

Recognizing the contribution of VOCs and nitrogen oxides to the formation of tropospheric ozone,

Recognizing also that VOCs, nitrogen oxides and resulting ozone are transported across international boundaries, affecting air quality in neighbouring States,

Aware that the mechanism of photochemical oxidant creation is such that the reduction of emissions of VOCs is necessary in order to reduce the incidence of photochemical oxidants,

Further aware that methane and carbon monoxide emitted by human activities are present at background levels in the air over the ECE region and contribute to the formation of episodic peak ozone levels; that, in addition, their global-scale oxidation in the presence of nitrogen oxides contributes to the formation of the background levels

of tropospheric ozone upon which photochemical episodes are superimposed; and that methane is expected to become the subject of control actions in other forums,

Recalling that the Executive Body for the Convention identified at its sixth session the need to control emissions of VOCs or their transboundary fluxes, as well as to control the incidence of photochemical oxidants, and the need for Parties that had already reduced these emissions to maintain and review their emission standards for VOCs,

Acknowledging the measures already taken by some Parties which have had the effect of reducing their national annual emissions of nitrogen oxides and VOCs,

Noting that some Parties have set air quality standards and/or objectives for tropospheric ozone and that standards for tropospheric ozone concentrations have been set by the World Health Organization and other competent bodies,

Determined to take effective action to control and reduce national annual emissions of VOCs or the transboundary fluxes of VOCs and the resulting secondary photochemical oxidant products, in particular by applying appropriate national or international emission standards to new mobile and new stationary sources and retrofitting existing major stationary sources, and also by limiting the content of components in products for industrial and domestic use that have the potential to emit VOCs,

Conscious that volatile organic compounds differ greatly from each other in their reactivity and in their potential to create tropospheric ozone and other photochemical oxidants and that, for any individual compounds, potential may vary from time to time and from place to place depending on meteorological and other factors,

Recognizing that such differences and variations should be taken into consideration if action to control and reduce emissions and transboundary fluxes of VOCs is to be as effective as possible in minimizing the formation of tropospheric ozone and other photochemical oxidants,

Taking into consideration existing scientific and technical data on emissions, atmospheric movements and effects on the environment of VOCs and photochemical oxidants, as well as on control technologies,

Recognizing that scientific and technical knowledge of these matters is developing and that it will be necessary to take such developments into account when reviewing the operation of the present Protocol and deciding on further action,

Noting that the elaboration of an approach based on critical levels is aimed at the establishment of an effect-oriented scientific basis to be taken into account when reviewing the operation of the present Protocol, and at deciding on further internationally agreed measures to limit and reduce emissions of VOCs or the transboundary fluxes of VOCs and photochemical oxidants,

Have agreed as follows:

Article 1

DEFINITIONS

For the purposes of the present Protocol,

1. "Convention" means the Convention on Long-range Transboundary Air Pollution, adopted in Geneva on 13 November 1979;

2. "EMEP" means the Co-operative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe;

3. "Executive Body" means the Executive Body for the Convention constituted under article 10, paragraph 1, of the Convention;

4. "Geographical scope of EMEP" means the area defined in article 1, paragraph 4, of the Protocol to the 1979 Convention on Long-range Transboundary Air Pollution on Long-term Financing of the Co-operative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe (EMEP), adopted in Geneva on 28 September 1984;

5. "Tropospheric ozone management area" (TOMA) means an area specified in annex I under conditions laid down in article 2, paragraph 2 (b);

6. "Parties" means, unless the context otherwise requires, the Parties to the present Protocol;

7. "Commission" means the United Nations Economic Commission for Europe;

8. "Critical levels" means concentrations of pollutants in the atmosphere for a specified exposure time below which direct adverse effects on receptors, such as human beings, plants, ecosystems or materials do not occur according to present knowledge;

9. "Volatile organic compounds", or "VOCs", means, unless otherwise specified, all organic compounds of anthropogenic nature, other than methane, that are capable of producing photochemical oxidants by reactions with nitrogen oxides in the presence of sunlight;

10. "Major source category" means any category of sources which emit air pollutants in the form of VOCs, including the categories described in annexes II and III, and which contribute at least 1% of the total national emissions of VOCs on an annual basis, as measured or calculated in the first calendar year after the date of entry into force of the present Protocol, and every fourth year thereafter;

11. "New stationary source" means any stationary source of which the construction or substantial modification is commenced after the expiry of two years from the date of entry into force of the present Protocol;

12. "New mobile source" means any on-road motor vehicle which is manufactured after the expiry of two years from the date of entry into force of the present Protocol;

13. "Photochemical ozone creation potential" (POCP) means the potential of an individual VOC, relative to that of other VOCs, to form ozone by reaction with oxides of nitrogen in the presence of sunlight, as described in annex IV.

Article 2

BASIC OBLIGATIONS

1. The Parties shall control and reduce their emissions of VOCs in order to reduce their transboundary fluxes and the fluxes of the resulting secondary photochemical oxidant products so as to protect human health and the environment from adverse effects.

2. Each Party shall, in order to meet the requirements of paragraph 1 above, control and reduce its national annual emissions of VOCs or their transboundary fluxes in any one of the following ways to be specified upon signature:

(a) It shall, as soon as possible and as a first step, take effective measures to reduce its national annual emissions of VOCs by at least 30% by the year 1999, using 1988 levels as a basis or any other annual level during the period 1984 to 1990, which it may specify upon signature of or accession to the present Protocol; or

(b) Where its annual emissions contribute to tropospheric ozone concentrations in areas under the jurisdiction of one or more other Parties, and such emissions originate only from areas under its jurisdiction that are specified as TOMAs in annex I, it shall, as soon as possible and as a first step, take effective measures to:

(i) Reduce its annual emissions of VOCs from the areas so specified by at least 30% by the year 1999, using 1988 levels as a basis or any other annual level during the period 1984-1990, which it may specify upon signature of or accession to the present Protocol; and

(ii) Ensure that its total national annual emissions of VOCs by the year 1999 do not exceed the 1988 levels; or

(c) Where its national annual emissions of VOCs were in 1988 lower than 500,000 tonnes and 20 kg/inhabitant and 5 tonnes/km^2, it shall, as soon as possible and as a first step, take effective measures to ensure at least that at the latest by the year 1999 its national annual emissions of VOCs do not exceed the 1988 levels.

3. (a) Furthermore, no later than two years after the date of entry into force of the present Protocol, each Party shall:

(i) Apply appropriate national or international emission standards to new stationary sources based on the best available technologies which are economically feasible, taking into consideration annex II;

(ii) Apply national or international measures to products that contain solvents and promote the use of products that are low in or do not contain VOCs, taking into consideration annex II, including the labelling of products specifying their VOC content;

(iii) Apply appropriate national or international emission standards to new mobile sources based on the best available technologies which are economically feasible, taking into consideration annex III; and

(iv) Foster public participation in mission control programmes through public announcements, encouraging the best use of all modes of transportation and promoting traffic management schemes.

(b) Furthermore, no later than five years after the date of entry into force of the present Protocol, in those areas in which national or international tropospheric ozone standards are exceeded or where transboundary fluxes originate or are expected to originate, each Party shall:

(i) Apply the best available technologies that are economically feasible to existing stationary sources in major source categories, taking into consideration annex II;

(ii) Apply techniques to reduce VOC emissions from petrol distribution and motor vehicle refuelling operations, and to reduce volatility of petrol, taking into consideration annexes II and III.

4. In carrying out their obligations under this article, Parties are invited to give highest priority to reduction and control of emissions of substances with the greatest POCP, taking into consideration the information contained in annex IV.

5. In implementing the present Protocol, and in particular any product substitution measures, Parties shall take appropriate steps to ensure that toxic and carcinogenic VOCs, and those that harm the stratospheric ozone layer, are not substituted for other VOCs.

6. The Parties shall, as a second step, commence negotiations, no later than six months after the date of entry into force of the present Protocol, on further steps to reduce national annual emissions of volatile organic compounds or transboundary fluxes of such emissions and their resulting secondary photochemical oxidant products, taking into account the best available scientific and technological developments, scientifically determined critical levels and internationally accepted target levels, the role of nitrogen oxides in the formation of photochemical oxidants and other elements resulting from the work programme undertaken under article 5.

7. To this end, the Parties shall cooperate in order to establish:

(a) More detailed information on the individual VOCs and their POCP values;

(b) Critical levels for photochemical oxidants;

(c) Reductions in national annual emissions or transboundary fluxes of VOCs and their resulting secondary photochemical oxidant products, especially as required to achieve agreed objectives based on critical levels;

(d) Control strategies, such as economic instruments, to obtain overall cost-effectiveness to achieve agreed objectives;

(e) Measures and a timetable commencing no later than 1 January 2000 for achieving such reductions.

8. In the course of these negotiations, the Parties shall consider whether it would be appropriate for the purposes specified in paragraph 1 to supplement such further steps with measures to reduce methane.

Article 3

FURTHER MEASURES

1. Measures required by the present Protocol shall not relieve Parties from their other obligations to take measures to reduce total gaseous emissions that may contribute significantly to climate change, to the formation of tropospheric background ozone or to the depletion of stratospheric ozone, or that are toxic or carcinogenic.

2. Parties may take more stringent measures than those required by the present Protocol.

3. The Parties shall establish a mechanism for monitoring compliance with the present Protocol. As a first step based on information provided pursuant to article 8 or other information, any Party which has reason to believe that another Party is acting or has acted in a manner inconsistent with its obligations under this Protocol may inform the Executive Body to that effect and, simultaneously, the Parties concerned. At the request of any Party, the matter may be taken up at the next meeting of the Executive Body.

Article 4

EXCHANGE OF TECHNOLOGY

1. The Parties shall, consistent with their national laws, regulations and practices, facilitate the exchange of technology to reduce emissions of VOCs, particularly through the promotion of:

(a) The commercial exchange of available technology;

(b) Direct industrial contacts and cooperation, including joint ventures;

(c) The exchange of information and experience;

(d) The provision of technical assistance.

2. In promoting the activities specified in paragraph 1 of this article, the Parties shall create favourable conditions by facilitating contacts and cooperation among appropriate organizations and individuals in the private and public sectors that are capable of providing technology, design and engineering services, equipment or finance.

3. The Parties shall, no later than six months after the date of entry into force of the present protocol, commence consideration of procedures to create more favourable conditions for the exchange of technology to reduce emissions of VOCs.

Article 5

RESEARCH AND MONITORING TO BE UNDERTAKEN

The Parties shall give high priority to research and monitoring related to the development and application of methods to achieve national or international tropospheric ozone standards and other goals to protect human health and the environment. The Parties shall, in particular, through national or international research programmes, in the work-plan of the Executive Body and through other cooperative programmes within the framework of the Convention, seek to:

(a) Identify and quantify effects of emissions of VOCs, both anthropogenic and biogenic, and photochemical oxidants on human health, the environment and materials;

(b) Determine the geographical distribution of sensitive areas;

(c) Develop emission and air quality monitoring and model calculations including methodologies for the calculation of emissions, taking into account, as far as possible, the different VOC species, both anthropogenic and biogenic, and their reactivity, to quantify the long-range transport of VOCs, both anthropogenic and biogenic, and related pollutants involved in the formation of photochemical oxidants;

(d) Improve estimates of the performance and costs of technologies for control of emissions of VOCs and record the development of improved and new technologies;

(e) Develop, within the context of the approach based on critical levels, methods to integrate scientific, technical and economic data in order to determine appropriate rational strategies for limiting VOC emissions and obtain overall cost-effectiveness to achieve agreed objectives;

(f) Improve the accuracy of inventories of emissions of VOCs, both anthropogenic and biogenic, and harmonize the methods of their calculation or estimation;

(g) Improve their understanding of the chemical processes involved in the creation of photochemical oxidants;

(h) Identify possible measures to reduce emissions of methane.

Article 6

REVIEW PROCESS

1. The Parties shall regularly review the present Protocol, taking into account the best available scientific substantiation and technological development.

2. The first review shall take place no later than one year after the date of entry into force of the present Protocol.

Article 7

NATIONAL PROGRAMMES, POLICIES AND STRATEGIES

The Parties shall develop without undue delay national programmes, policies and strategies to implement the obligations under the present Protocol that shall serve as a means of controlling and reducing emissions of VOCs or their transboundary fluxes.

Article 8

INFORMATION EXCHANGE AND ANNUAL REPORTING

1. The Parties shall exchange information by notifying the Executive Body of the national programmes, policies and strategies that they develop in accordance with article 7, and by reporting to it progress achieved under, and any changes to, those programmes, policies and strategies. In the first year after entry into force of this Protocol, each Party shall report on the level of emissions of VOCs in its territory and any TOMA in its territory, by total and, to the extent feasible, by sector of origin and by individual VOC, according to guidelines to be specified by the Executive Body for 1988 or any other year taken as the base year for article 2.2 and on the basis upon which these levels have been calculated.

2. Furthermore each Party shall report annually:

(a) On the matters specified in paragraph 1 for the previous calendar year, and on any revision which may be necessary to the reports already made for earlier years;

(b) On progress in applying national or international emission standards and the control techniques required under article 2, paragraph 3;

(c) On measures taken to facilitate the exchange of technology.

3. In addition, parties within the geographical scope of EMEP shall report, at intervals to be specified by the Executive Body, information on VOC emissions by sector of origin, with a spatial resolution, to be specified by the Executive Body, appropriate for purposes of modelling the formation and transport of secondary photochemical oxidant products.

4. Such information shall, as far as possible, be submitted in accordance with a uniform reporting framework.

Article 9

CALCULATIONS

EMEP shall, utilizing appropriate models and measurements, provide to the annual meetings of the Executive Body relevant information on the long-range transport of ozone in Europe. In areas outside the geographical scope of EMEP, models appropriate to the particular circumstances of Parties to the Convention therein shall be used.

Article 10

ANNEXES

The annexes to the present Protocol shall form an integral part of the Protocol. Annex I is mandatory while annexes II, III and IV are recommendatory.

Article 11

AMENDMENTS TO THE PROTOCOL

1. Any Party may propose amendments to the present Protocol.

2. Proposed amendments shall be submitted in writing to the Executive Secretary of the Commission, who shall communicate them to all Parties. The Executive Body shall discuss the proposed amendments at its next annual

meeting, provided that those proposals have been circulated by the Executive Secretary to the Parties at least 90 days in advance.

3. Amendments to the Protocol, other than amendments to its annexes, shall be adopted by consensus of the Parties present at a meeting of the Executive Body, and shall enter into force for the Parties which have accepted them on the ninetieth day after the date on which two thirds of the Parties have deposited their instruments of acceptance thereof. Amendments shall enter into force for any party which has accepted them after two thirds of the Parties have deposited their instruments of acceptance of the amendment, on the ninetieth day after the date on which that Party deposited its instrument of acceptance of the amendments.

4. Amendments to the annexes shall be adopted by consensus of the Parties present at a meeting of the Executive Body and shall become effective 30 days after the date on which they have been communicated, in accordance with paragraph 5 of this article.

5. Amendments under paragraphs 3 and 4 of this article shall, as soon as possible after their adoption, be communicated by the Executive Secretary to all Parties.

Article 12

SETTLEMENT OF DISPUTES

If a dispute arises between two or more Parties as to the interpretation or application of the present Protocol, they shall seek a solution by negotiation or by any other method of dispute settlement acceptable to the parties to the dispute.

Article 13

SIGNATURE

1. The present Protocol shall be open for signature at Geneva from 18 November 1991 until 22 November 1991 inclusive, then at the United Nations Headquarters in New York until 22 May 1992, by the States members of the Commission as well as States having consultative status with the Commission, pursuant to paragraph 8 of Economic and Social Council resolution 36 (IV) of 28 March 1947, and by regional economic integration organizations, constituted by sovereign States members of the Commission, which have competence in respect of the negotiation, conclusion and application of international agreements in matters covered by the Protocol, provided that the States and organizations concerned are Parties to the Convention.

2. In matters within their competence, such regional economic integration organizations shall, on their own behalf, exercise the rights and fulfil the responsibilities which the present Protocol attributes to their member States. In such cases, the member States of these organizations shall not be entitled to exercise such rights individually.

Article 14

RATIFICATION, ACCEPTANCE, APPROVAL AND ACCESSION

1. The present Protocol shall be subject to ratification, acceptance or approval by Signatories.

2. The present Protocol shall be open for accession as from 22 May 1992 by the States and organizations referred to in article 13, paragraph 1.

Article 15

DEPOSITARY

The instruments of ratification, acceptance, approval or accession shall be deposited with the Secretary-General of the United Nations, who will perform the functions of Depositary.

Article 16

ENTRY INTO FORCE

1. The present protocol shall enter into force on the ninetieth day following the date on which the sixteenth instrument of ratification, acceptance, approval or accession has been deposited.

2. For each State and organization referred to in article 13, paragraph 1, which ratifies, accepts or approves the present Protocol or accedes thereto after the deposit of the sixteenth instrument of ratification, acceptance, approval or accession, the Protocol shall enter into force on the ninetieth day following the date of deposit by such Party of its instrument of ratification, acceptance, approval or accession.

Article 17

WITHDRAWAL

At any time after five years from the date on which the present Protocol has come into force with respect to a Party, that Party may withdraw from it by giving written notification to the Depositary. Any such withdrawal shall take effect on the ninetieth day following the date of its receipt by the Depositary, or on such later date as may be specified in the notification of the withdrawal.

Article 18

AUTHENTIC TEXTS

The original of the present Protocol, of which the English, French and Russian texts are equally authentic, shall be deposited with the Secretary-General of the United Nations.

IN WITNESS WHEREOF the undersigned, being duly authorized thereto, have signed the present Protocol.

DONE at Geneva this eighteenth day of November one thousand nine hundred and ninety-one.

ANNEX I

DESIGNATED TROPOSPHERIC OZONE MANAGEMENT AREAS (TOMAs)

The following TOMAs are specified for the purposes of this Protocol:

Canada

TOMA No. 1: The Lower Fraser Valley in the Province of British Columbia.

This is a 16,800-km^2 area in the southwestern corner of the Province of British Columbia averaging 80 km in width and extending 200 km up the Fraser River Valley from the mouth of the river in the Strait of Georgia to Boothroyd, British Columbia. Its southern boundary is the Canada/United States international boundary and it includes the Greater Vancouver Regional District.

TOMA No. 2: The Windsor-Quebec Corridor in the Provinces of Ontario and Quebec.

This is a 157,000-km^2 area consisting of a strip of land 1,100 km long and averaging 140 km in width stretching from the City of Windsor (adjacent to Detroit in the United States) in the Province of Ontario to Quebec City in the Province of Quebec. The Windsor-Quebec Corridor TOMA is located along the north shore of the Great Lakes and the St. Lawrence River in Ontario and straddles the St. Lawrence River from the Ontario-Quebec border to Quebec City in Quebec. It includes the urban centres of Windsor, London, Hamilton, Toronto, Ottawa, Montreal, Trois-Rivières and Quebec City.

Norway

The total Norwegian mainland as well as the exclusive economic zone south of 62°N latitude in the region of the Economic Commission for Europe (ECE), covering an area of 466,000 km^2.

ANNEX II

CONTROL MEASURES FOR EMISSIONS OF VOLATILE ORGANIC COMPOUNDS (VOCs) FROM STATIONARY SOURCES

INTRODUCTION

1. The aim of this annex is to provide the Parties to the Convention with guidance in identifying best available technologies to enable them to meet the obligations of the Protocol.

2. Information regarding emission performance and costs is based on official documentation of the Executive Body and its subsidiary bodies, in particular documents received and reviewed by the Task Force on Emissions of VOCs from Stationary Sources. Unless otherwise indicated, the techniques listed are considered to be well established on the basis of operational experience.

3. Experience with new products and new plants incorporating low-emission techniques, as well as with the retrofitting of existing plants, is continuously growing; the regular elaboration and amendment of the annex will therefore be necessary. Best available technologies identified for new plants can be applied to existing plants after an adequate transition period.

4. The annex lists a number of measures spanning a range of costs and efficiencies. The choice of measures for any particular case will depend on a number of factors, including economic circumstances, technological infrastructure and any existing VOC control implemented.

5. This annex does not, in general, take into account the specific species of VOC emitted by the different sources, but deals with best available technologies for VOC reduction. When measures are planned for some sources, it is worthwhile to consider giving priority to those activities which emit reactive rather than non-reactive VOCs (e.g. in the solvent-using sector). However, when such compound-specific measures are designed, other effects on the environment (e.g. global climate change) and on human health should also be taken into account.

I. MAJOR SOURCES OF VOC EMISSIONS FROM STATIONARY SOURCES

6. The major sources of anthropogenic non-methane VOC emissions from stationary sources are the following:

(a) Use of solvents;

(b) Petroleum industry including petroleum-product handling;

(c) Organic chemical industry;

(d) Small-scale combustion sources (e.g. domestic heating and small industrial boilers);

(e) Food industry;

(f) Iron and steel industry;

(g) Handling and treatment of wastes;

(h) Agriculture.

7. The order of the list reflects the general importance of the sources subject to the uncertainties of emission inventories. The distribution of VOC emissions according to different sources depends greatly on the fields of activity within the territory of any particular Party.

II. GENERAL OPTIONS FOR VOC-EMISSION REDUCTION

8. There are several possibilities for the control or prevention of VOC emissions. Measures for the reduction of VOC emissions focus on products and/or process modifications (including maintenance and operational control) and on the retrofitting of existing plants. The following list gives a general outline of measures available, which may be implemented either singly or in combination:

(a) Substitution of VOCs; e.g. the use of water-based degreasing baths, and paints, inks, glues or adhesives which are low in or do not contain VOCs;

(b) Reduction by best management practices such as good housekeeping, preventive maintenance programmes, or by changes in processes such as closed systems during utilization, storage and distribution of low-boiling organic liquids;

(c) Recycling and/or recovery of efficiently collected VOCs by control techniques such as adsorption, absorption, condensation and membrane processes; ideally, organic compounds can be reused on-site;

(d) Destruction of efficiently collected VOCs by control techniques such as thermal or catalytic incineration or biological treatment.

9. The monitoring of abatement procedures is necessary to ensure that appropriate control measures and practices are properly implemented for an effective reduction of VOC emissions. Monitoring of abatement procedures will include:

(a) The development of an inventory of those VOC-emission reduction measures, identified above, that have already been implemented;

(b) The characterization and quantification of VOC emissions from relevant sources by instrumental or other techniques;

(c) Periodic auditing of abatement measures implemented to ensure their continued efficient operation;

(d) Regularly scheduled reporting on (a), (b) and (c), using harmonized procedures, to regulatory authorities;

(e) Comparison, with the objectives of the Protocol, of VOC-emission reductions achieved in practice.

10. The investment/cost figures have been collected from various sources. On account of the many influencing factors, investment/cost figures are highly case-specific. If the unit "cost per tonne of VOC abated" is used for cost-efficient strategy considerations, it must be borne in mind that such specific figures are highly dependent on factors such as plant capacity, removal efficiency and raw gas VOC concentration, type of technology, and the choice of new installations as opposed to retrofitting. Illustrative cost figures should also be based on process-specific parameters, e.g. mg/m^2 treated (paints), kg/m^3 product or kg/unit.

11. Cost-efficient strategy considerations should be based on total costs per year (including capital and operational costs). VOC-emission reduction costs should also be considered within the framework of the overall process economics, e.g. the impact of control measures and costs on the costs of production.

III. CONTROL TECHNIQUES

12. The major categories of available control techniques for VOC abatement are summarized in table 1. Those techniques chosen for inclusion in the table have been successfully applied commercially and are now well established. For the most part, they have been applied generally across sectors.

13. Sector-specific techniques, including the limitation of the solvent content of products, are given in sections IV and V.

14. Care should be taken to ensure that the implementation of these control techniques does not create other environmental problems. If incineration has to be used, it should be combined with energy recovery, where appropriate.

15. Using such techniques, concentrations of below 150 mg/m^3 (as total carbon, standard conditions) can usually be achieved in exhaust air flows. In most cases, emission values of 10-50 mg/m^3 can be achieved.

16. Another common procedure for destroying non-halogenated VOCs is to use VOC-laden gas streams as secondary air or fuel in existing energy-conversion units. However, this usually requires site-specific process modifications and therefore it too is excluded from the following table.

17. Data on efficiency are derived from operational experience and are considered to reflect the capabilities of current installations.

18. Cost data are more subject to uncertainty due to interpretation of costs, accountancy practices and site-specific conditions. Therefore the data provided are case-specific. They cover the cost ranges for the different techniques. The costs do, however, accurately reflect the relationships between the costs of the different techniques. Differences in costs between new and retrofit applications may in some cases be significant but do not differ sufficiently to change the order in table 1.

19. The choice of a control technique will depend on parameters such as the concentration of VOCs in the raw gas, gas volume flow, the type of VOCs, and others. Therefore, some overlap in the fields of application may occur; in that case, the most appropriate technique must be selected according to case-specific conditions.

TABLE 1. A SUMMARY OF AVAILABLE VOC CONTROL TECHNIQUES, THEIR EFFICIENCIES AND COSTS

Technique	Lower concentration in air flow		Higher concentration in air flow		Application
	Efficiency	Cost	Efficiency	Cost	
Thermal incineration**	High	High	High	Medium	Wide for high concentration flows
Catalytic incineration**	High	Medium	Medium	Medium	More specialized for lower concentration flows
Adsorption* (activated carbon filters)	High	High	Medium	Medium	Wide for low concentration flows
Absorption (Waste gas washing)	-	-	High	Medium	Wide for high concentration flows
Condensation*	-	-	Medium	Low	Special cases of high concentration flows only
Biofiltration	Medium to high	Low	Low***	Low	Mainly in low concentration flows, including odour control

Concentration: Lower <3 g/m^3 (in many cases <1g/m^3); Higher >5g/m^3

Efficiency: High >95%
Medium 80-95%
Low <80%

Total cost: High >500 ECU/t VOC abated
Medium 150-500 ECU/t VOC abated
Low <150 ECU/t VOC abated

* These processes can be combined with solvent recovery systems. Cost savings then ensue.
** Savings due to energy recovery are not included; these can reduce the costs considerably.
*** With buffering filters to dampen emission peaks, medium to high efficiencies are achieved at medium to low costs.

IV. SECTORS

20. In this section, each VOC-emitting sector is characterized by a table containing the main emission sources, control measures including the best available technologies, their specific reduction efficiency and the related costs.

21. An estimate is also provided of the overall potential within each sector for reducing its VOC emissions. The maximum reduction potential refers to situations in which only a low level of control is in place.

22. Process-specific reduction efficiencies should not be confused with the figures given for the reduction potential of each sector. The former are technical feasibilities, while the latter take into account the likely penetration and other factors affecting each sector. The process-specific efficiencies are given only qualitatively, as follows:

I = > 95%; II = 80-95%; III = < 80%

23. Costs depend on capacity, site-specific factors, accountancy practices and other factors. Consequently, costs may vary greatly, therefore, only qualitative information (medium, low, high) is provided, referring to comparisons of costs of different technologies mentioned for specific applications.

A. Industrial use of solvents

24. The industrial use of solvents is in many countries the biggest contributor to VOC emissions from stationary sources. Main sectors and control measures, including best available technologies and reduction efficiencies, are listed in table 2, and the best available technology is specified for each sector. There may be differences between small and large or new and old plants. For this reason, the estimated overall reduction potential quoted is below the values implied in table 2. The estimated overall reduction potential for this sector is up to 60%. A further step to reduce episodic ozone formation potential can include the reformulation of the remaining solvents.

25. With respect to the industrial use of solvents, three approaches can in principle be used: a product-oriented approach which, for instance, leads to a reformulation of the product (paint, degreasing products, etc.); process-oriented changes; and add-on control technologies. For some industrial uses of solvents only a product-oriented approach is available (in the case of painting constructions, painting buildings, the industrial use of cleaning products, etc.). In all other cases, the product-oriented approach deserves priority, inter alia, because of the positive spin-off effects on the solvent emission of the manufacturing industry. Furthermore, the environmental impact of emissions can be reduced by combining best available technology with product reformulation to replace solvents by less harmful alternatives. According to a combined approach of this kind, the maximum emission reduction potential of up to 60% could lead to an improvement in environmental performance that is significantly higher.

26. There is rapid ongoing development towards low-solvent or solvent-free paints, which are among the most cost-effective solutions. For many plants, a combination of low-solvent and adsorption/incineration techniques are chosen. VOC-emission control for large-scale, industrial painting (e.g. of cars, domestic appliances) could be implemented relatively quickly. Emissions have been reduced as far as 60 g/m^2 in several countries. The technical possibility of reducing emissions from new plants to below 20 g/m^2 has been recognized by several countries.

27. For the degreasing of metal surfaces, alternative solutions are water-based treatment or closed machines with activated carbon for recovery, with low emissions.

28. For the different printing techniques, several methods to reduce VOC emissions are employed. These mainly involve the changing of inks, changes within the printing process using other printing methods, and gas cleaning techniques. Waterborne ink instead of solvent-based ink is used for flexographic printing on paper and is under development for printing on plastic. Waterborne inks for screen and rotogravure printing are available for some applications. The use of electron beam cured ink in offset eliminates VOCs and is used in the package printing industry. For some printing methods, UV-cured inks are available. Best available technology for publication rotogravure is the gas cleaning technique using carbon adsorbers. In packaging, the rotogravure recovery of solvent by adsorption (zeolites, active carbon) is practised, but incineration and absorption are also used. For heatset, the weboffset thermal or catalytic incineration of exhaust gases is used. The incineration equipment often includes a unit for heat recovery.

29. For dry-cleaning, the best available technology consists of closed machines and treatment of the exhaust ventilation air by activated carbon filters.

TABLE 2. VOC-EMISSION CONTROL MEASURES, REDUCTION EFFICIENCY AND COSTS FOR THE SOLVENT-USING SECTOR

Source of emission	Emission control measures	Reduction efficiency	Abatement costs and savings
Industrial surface coating	Conversion to:		Savings
	- powder paints	I	
	- low in/not containing VOCs	I - III	Low costs
	- high solids	I - III	Savings
	Incineration: - thermal	I - II	Medium to high costs
	- catalytic	I - II	Medium costs
	Activated carbon adsorption	I - II	Medium costs
Paper surface coating	Incinerator	I - II	Medium costs
	Radiation cure/waterborne inks	I - III	Low costs
Car manufacturing	Conversion to:		
	- powder paints	I	
	- water-based systems	I - II	Low costs
	- high solid coating	II	
	Activated carbon adsorption	I - II	Low costs
	Incineration with heat recovery		
	- thermal	I - II	
	- catalytic	I - II	
Commercial painting	Low in/not containing VOCs	I - II	Medium costs
	Low in/not containing VOCs	II - III	Medium costs
Printing	Low-solvent/water-based inks	II - III	Medium costs
	Letterpress: radiation cure	I	Low costs
	Activated carbon adsorption	I - II	High costs
	Absorption		
	Incineration	I - II	
	- thermal		
	- catalytic		
	Biofiltration including buffer filter	I	Medium costs
Metal degreasing	Change-over to systems low in/not containing VOCs	I	
	Closed machines		
	Activated carbon adsorption	II	Low to high costs
	Cover, chilled freeboards	III	Low costs
Dry-cleaning	Recovery dryers and good house-keeping (closed cycles)	II - III	Low to medium costs
	Condensation	II	Low costs
	Activated carbon adsorption	II	Low costs
Flat wood panelling	Coatings low in/not containing VOCs	I	Low costs

B. Petroleum industry

30. The petroleum industry is one of the major contributors to VOC emissions from stationary sources. Emissions are from both refineries and distribution (including transportation and filling-stations). The following comments refer to table 3, the measures mentioned also include best available technology.

31. Refinery process emissions arise from fuel combustion, flaring of hydrocarbons, vacuum-system discharges and fugitive emissions from process units, such as flanges and connectors, opened lines and sampling systems. Other major VOC emissions within refineries and related activities result from storage, waste-water treatment processes, loading/discharging facilities such as harbours, truck- and railway-racks, pipeline terminals, and periodic operations such as shut-downs, servicing and start-ups (process-unit turnarounds).

32. Process-unit turnaround emissions may be controlled by venting vessel vapours to vapour recovery systems or controlled flaring.

33. Vacuum-system discharges may be controlled by condensation or by piping to boilers or heaters.

34. Fugitive emissions from process equipment in gas/vapour or light liquid service (e.g. automatic control valves, manual valves, pressure relief devices, sampling systems, pumps, compressors, flanges and connectors) can be reduced or prevented by regularly performing leak detection, repair programmes and preventive maintenance. Equipment with substantial leaks (e.g. valves, gaskets, seals, pumps, etc.) can be replaced by equipment that is more

TABLE 3. VOC-EMISSION CONTROL MEASURES, REDUCTION EFFICIENCY AND COSTS FOR THE PETROLEUM INDUSTRY

Source of emission	Emission control measures	Reduction efficiency	Abatement costs and savings
Petroleum refineries			
- Fugitive emissions	Regular inspection and maintenance	III	Medium costs
- Process-unit turnarounds	Flares/process furnace vapour recovery	I	not available
- Waste-water separator	Floating cover	II	Medium costs/ savings
- Vacuum process system	Surface contact condensors Non-condensable VOCs piped to heaters or furnaces	I	
- Incineration of sludge	Thermal incineration	I	
Storage of crude oil and products			
- Petrol	Internal floating roofs with secondary seals	I - II	Savings
	Floating roof tanks with secondary seals	II	Savings
- Crude oil	Floating roof tanks with secondary seals	II	Savings
- Petrol marketing terminals (loading and unloading of trucks, barges and trains)	Vapour recovery unit	I - II	Savings
- Petrol service stations	Vapour balance on tank trucks (Stage I)	I - II	Low costs/savings
	Vapour balance during refuelling (refuelling nozzles) (Stage II)	I (- II**)	Medium costs*

* Depending on capacity (station size), retrofitting or new service stations.
** Will increase with increasing penetration of standardization of vehicle filling pipes.

leakproof. For example, manual and automatic control valves can be changed for corresponding valves with bellow gaskets. Pumps in gas/vapour and light liquid service can be fitted with dual mechanical seals with controlled degassing vents. Compressors can be equipped with seals with a barrier fluid system that prevents leakage of the process fluid to the atmosphere, and leakage from compressors seals directed to the flares.

35. Pressure relief valves for media that may contain VOCs can be connected to a gas-collecting system and the gases collected burnt in process furnaces or flares.

36. VOC emissions from the storage of crude oil and products can be reduced by equipping fixed-roof tanks with internal floating roofs or by equipping floating-roof tanks with secondary seals.

37. VOC emissions from the storage of petrol and other light liquid components can be reduced by several means. Fixed-roof tanks can be equipped with internal floating roofs with primary and secondary seals or connected to a closed vent system and an effective control device, e.g. vapour recovery, flaring or combustion in process heaters. External floating-roof tanks with primary seals can be equipped with secondary seals, and/or supplemented with tight, fixed roofs, with pressure relief valves which can be connected to the flare.

38. VOC emissions in connection with waste-water handling and treatment can be reduced by several means. Water-seal controls can be installed, as can junction boxes, equipped with tight-fitting covers, in drain systems. Sewer lines can be covered. Alternatively, the drain system can be completely closed to the atmosphere. Oil-water separators, including separation tanks, skimmers, weirs, grit chambers, sludge hoppers and slop-oil facilities, can be equipped with fixed roofs and closed vent systems that direct vapours to a control device, designed either for the recovery or destruction of the VOC vapours. Alternatively, oil-water separators can be equipped with floating roofs with primary and secondary seals. The effective reduction of VOC emissions from waste-water treatment plants can be achieved by draining oil from process equipment to the slop-oil system, thus minimizing the oil-flow into the waste-water treatment plant. The temperature of incoming water can also be controlled in order to lower emissions to the atmosphere.

39. The petrol storage and distribution sector has a high reduction potential. Emission control covering the loading of petrol at the refinery (via intermediate terminals) up to its discharge at petrol service stations is defined as Stage I; control of emissions from the refuelling of cars at service stations is defined as Stage II (see para. 33 of annex III on Control Measures for Emissions of Volatile Organic Compounds (VOCs) from on-road Motor Vehicles).

40. Stage I control consists of vapour balancing and vapour collection at the loading of petrol, and recovering the vapour in recovery units. Furthermore, vapour collected at service stations from the discharge of petrol from trucks can be returned and recovered in vapour recovery units.

41. Stage II control consists of vapour balancing between the vehicle fuel tank and the service station's underground storage tank.

42. Stage II together with Stage I is the best available technology for reducing evaporative emissions during petrol distribution. A complementary means of reducing VOC emissions from fuel storage and handling is to reduce fuel volatility.

43. The overall reduction potential in the petroleum industry sector is up to 80%. This maximum could be reached only where the current level of emission control is low.

C. Organic chemical industry

44. The chemical industry also makes a considerable contribution to VOC emissions from stationary sources. The emissions are of different characters with a wide range of pollutants, because of the variety of products and production processes. Process emissions can be divided into the following major subcategories: reactor-process emissions, air-oxidation emissions and distillation, and other separation processes. Other significant emission sources are from leaks, storage and product transfer (loading/unloading).

45. For new plants, process modifications and/or new processes often reduce emissions considerably. So-called "add-on" or "end-of-pipe" techniques such as adsorption, absorption, thermal and catalytic incineration in many cases represent alternative or complementary technologies. To reduce evaporation losses from storage tanks and emissions from loading and unloading facilities, the control measures recommended for the petroleum industry (table 3) can be applied. Control measures including best available technologies and their process-related reduction efficiencies are given in table 4.

46. The feasible overall reduction potential in the organic chemical industry is up to 70%, depending on the industry mix and the extent to which control technologies and practices are in place.

TABLE 4. VOC-EMISSION CONTROL MEASURES, REDUCTION EFFICIENCY AND COSTS FOR THE ORGANIC CHEMICAL INDUSTRY

Source of emission	Emission control measures	Reduction efficiency	Abatement costs and savings
Fugitive emissions	Leak detection and repair programme		
	- regular inspection	III	Low costs
Storage and handling	- See table 3 -		
	General measures:		
Process emissions	- carbon adsorption	I - II	n.a.
	- incineration: - thermal	I - II	Medium to high costs
	- catalytic	I - II	n.a.
	- absorption		n.a.
	- biofiltration	n.a.	n.a.
	- flaring		
- Formaldehyde production	- incineration: - thermal	I	High costs
	- catalytic	I	
- Polyethylene production	- flaring	I	Medium costs
	- catalytic incineration	I - II	
- Polystyrene production	- thermal incineration	I	Medium costs
	- flaring		
	Process modifications (examples):		
- Vinyl chloride production	- substitution of air by oxygen in the oxychlorination step	II	n. a.
	- flaring	I	Medium costs
- Polyvinylchloride production	- slurry stripping of monomer	II	n. a.
	- Nitro-2-methyl-1-propanol-1 absorption	I	Savings
- Polypropylene production	- high yield catalyst	I	n.a.
- Ethylene oxide production	- substitution of air by oxygen	I	n. a.

n.a. Not available

D. Stationary combustion

47. Optimal VOC-emission reduction from stationary combustion depends on the efficient use of fuel at the national level (table 5). It is also important to ensure the effective combustion of fuel by the use of good operational procedures, efficient combustion appliances and advanced combustion-management systems.

48. For small systems in particular, there is still a considerable reduction potential, especially in the burning of solid fuels. VOC reduction in general is achievable by the replacement of old stoves/boilers and/or fuel-switching to gas. The replacement of single room stoves by central heating systems and/or the replacement of individual heating systems in general reduces pollution; however, overall energy efficiency has to be taken into account. Fuel-switching to gas is a very effective control measure, provided the distribution system is leakproof.

49. For most countries, the VOC-reduction potential for power plants is negligible. On account of the uncertain replacement/fuel-switch involved, no figures can be given regarding the overall reduction potential and the related costs.

TABLE 5. VOC-EMISSION CONTROL MEASURES FOR STATIONARY COMBUSTION SOURCES

Source of emission	Emission control measures
Small-scale combustion sources	Energy savings, e.g. insulation Regular inspection Replacement of old furnaces Natural gas and fuel oil instead of solid fuels Central heating system District heating system
Industrial and commercial sources	Energy savings Better maintenance Fuel-type modification Change of furnace and load Change of burning conditions
Stationary internal combustion sources	Catalytic converters Thermal reactors

E. Food industry

50. The food industry sector covers a wide range of VOC-emitting processes from large and small plants (table 6). The major sources of VOC emissions are:

(a) Production of alcoholic beverages;

(b) Baking;

(c) Vegetable oil extraction using mineral oils;

(d) Animal rendering.

Alcohol is the principal VOC from (a) and (b). Aliphatic hydrocarbons are the principal VOC from (c).

51. Other potential sources include:

(a) Sugar industry and sugar use;

(b) Coffee and nut roasting;

(c) Frying (chipped potatoes, crisps, etc.);

(d) Fish meal processing;

(e) Preparation of cooked meats, etc.

52. VOC emissions are typically odorous, of low concentration with high volume flow and water content. For this reason, the use of biofilters has been used as an abatement technique. Conventional techniques such as absorption, adsorption, thermal and catalytic incineration have also been used. The principal advantage of biofilters is their low operational cost compared with other techniques. Nevertheless, periodic maintenance is required.

53. It may be feasible for larger fermentation plants and bakeries to recover alcohol by condensation.

54. Aliphatic hydrocarbon emissions from oil extraction are minimized by using closed cycles and good housekeeping to prevent losses from valves and seals, etc. Different oil seeds require different volumes of mineral oil for extraction. Olive oil can be extracted mechanically, in which case no mineral oil is necessary.

55. The technologically feasible overall reduction potential in the food industry is estimated to be up to 35%.

TABLE 6. VOC-EMISSION CONTROL MEASURES, REDUCTION EFFICIENCY AND COSTS FOR THE FOOD INDUSTRY

Source of emission	Emission control measures	Reduction efficiency	Abatement costs
In general	Closed cycles		
	Bio-oxidation	II	Low*
	Condensation and treatment	I	High
	Adsorption/absorption		
	Thermal/catalytic incineration		
Vegetable-oil processing	Process-integrated measures	III	Low
	Adsorption		
	Membrane technique		
	Incineration in process furnace		
Animal rendering	Biofiltration	II	Low*

* Owing to the fact that these processes are usually applied to gases with low VOC concentrations, the costs per cubic metre of gas are low, although VOC abatement per tonne is high.

F. Iron and steel industry (including ferro-alloys, casting etc.)

56. In the iron and steel industry, VOC emissions may be from a variety of sources:

(a) Processing of input materials (cokeries, agglomeration plants: sintering, pelletizing, briquetting, scrap-handling);

(b) Metallurgical reactors (submerged are furnaces; electric arc furnaces; converters, especially if using scrap; (open) cupolas; blast furnaces);

(c) Product handling (casting, reheating furnaces, and rolling mills).

57. Reducing the carbon carrier in raw materials (e.g. on sintering belts) reduces the potential of VOC emissions.

58. In the case of open metallurgical reactors, VOC emissions may occur especially from contaminated scrap and under pyrolytic conditions. Special attention has to be paid to the collection of gases from charging and tapping operations, in order to minimize fugitive VOC emissions.

59. Special attention has to be paid to scrap which is contaminated by oil, grease, paint, etc., and to the separation of fluff (non-metallic parts) from metallic scrap.

60. The processing of products usually entails fugitive emissions. In the case of casting, emissions of pyrolysis gases occur, chiefly from organically bonded sands. These emissions can be reduced by choosing low-emission bonding resins and/or minimizing the quantity of binders. Biofilters have been tested on such flue gases. Oil mist in the air from rolling mills can be reduced to low levels by filtration.

61. Coking plants are an important VOC emission source. Emissions arise from: coke oven gas leakage, the loss of VOCs normally diverted to an associated distillation plant, and from the combustion of coke oven gas and other fuel. VOC emissions are reduced mainly by the following measures: improved sealing between oven doors and frames and between charging holes and covers; maintaining suction from ovens even during charging; dry quenching either by direct cooling with inert gases or by indirect cooling with water; pushing directly into the dry quenching unit; and efficient hooding during pushing operations.

G. Handling and treatment of waste

62. Concerning municipal solid waste control, the primary objectives are to reduce the amount of waste produced and to reduce the amount to be treated. In addition, the waste treatment should be optimized from an environmental point of view.

63. If landfill processes are used, VOC-emission control measures for the treatment of municipal waste should be linked to an efficient collection of the gases (mostly methane).

64. These emissions can be destroyed (incineration). Another option is the purification of the gas (bio-oxidation, absorption, activated carbon, adsorption) leading to use of the gas for energy production.

65. The landfill of industrial waste containing VOCs leads to VOC emissions. This point has to be taken into account in the definition of waste-management policies.

66. The overall reduction potential is estimated to be 30%, though this figure includes methane.

H. Agriculture

67. The principal sources of VOC emissions from agriculture are:

(a) Burning of agricultural waste, particularly straw and stubble;

(b) Use of organic solvents in pesticide formulations;

(c) Anaerobic degradation of animal feeds and wastes.

68. VOC emissions are reduced by:

(a) Controlled disposal of straw as opposed to the common practice of open-field burning;

(b) Minimal use of pesticides with high organic solvent contents, and/or the use of emulsions and water-based formulations;

(c) Composting of waste, combining manure with straw, etc;

(d) Abatement of exhaust gases from animal houses, manure drying plant, etc., by use of biofilters, adsorption, etc.

69. In addition, alterations of feed reduce emissions of gas from animals, and the recovery of gases for use as fuel is a possibility.

70. It is not currently possible to estimate the reduction potential of VOC emissions from agriculture.

V. PRODUCTS

71. In circumstances in which abatement by control techniques is not appropriate, the sole means of reducing VOC emissions is by altering the composition of products used. The main sectors and products concerned are: adhesives used in households, light industry, shops and offices; paints for use in households; household cleaning and personal care products; office products such as correcting fluids and car maintenance products. In any other situation in which products like those mentioned above are used (e.g. painting, light industry), alterations in product composition are highly preferable.

72. Measures aimed at reducing VOC emissions from such products are:

(a) Product substitution;

(b) Product reformulation;

(c) Altering the packaging of products, especially for reformulated products.

73. Instruments designed to influence market choice include:

(a) Labelling to ensure that consumers are well informed of the VOC content;

(b) Active encouragement of low-VOC-content products (e.g. the "Blue Angel" scheme);

(c) Fiscal incentives linked to VOC content.

74. The efficiency of these measures depends on the VOC content of the products involved and the availability and acceptability of alternatives. Reformulation should be checked to ensure that products do not create problems elsewhere (e.g. increased emissions of chlorofluorocarbons (CFCs).

75. VOC-containing products are used for industrial as well as domestic purposes. In either case the use of low-solvent alternatives may entail changes in application equipment and in work practices.

76. Paints commonly used for industrial and domestic purposes have an average solvent content of about 25 to 60%. For most applications, low-solvent or solvent-free alternatives are available or under development:

(a) Paint for use in the light industry:

Powder paint = 0% VOC content in product

Waterborne paint = 10% VOC content in product

Low-solvent paint = 15% VOC content in product

(b) Paint for domestic use:

Waterborne paint = 10% VOC content in product

Low-solvent paint = 15% VOC content in product

Switching over to alternative paints is expected to result in an overall VOC-emission reduction of about 45 to 60%.

77. Most adhesive products are used in industry, while domestic uses account for less than 10%. About 25% of the adhesives in use contain VOC solvents. For these adhesives, the solvent content varies widely and may constitute half the weight of the product. For several application areas, low-solvent/solvent-free alternatives are available. This source category therefore offers a high reduction potential.

78. Ink is mainly used for industrial printing processes, with solvent contents differing widely, up to 95%. For most printing processes, low-solvent inks are available or under development in particular for printing on paper (see para. 28).

79. About 40 to 60% of VOC emissions from consumer products (including office products and those used in car maintenance) are from aerosols. There are three basic ways of reducing VOC emissions from consumer products:

(a) Substitution of propellants and the use of mechanical pumps;

(b) Reformulation;

(c) Change of packaging.

80. The potential reduction of VOC emissions from consumer products is estimated to be 50%.

ANNEX III

CONTROL MEASURES FOR EMISSIONS OF VOLATILE ORGANIC COMPOUNDS (VOCs) FROM ON-ROAD MOTOR VEHICLES

INTRODUCTION

1. This annex is based on information on emission control performance and costs contained in official documentation of the Executive Body and its subsidiary bodies; in the report on Volatile Organic Compounds from On-road Vehicles: Sources and Control Options, prepared for the Working Group on Volatile Organic Compounds; in documentation of the Inland Transport Committee of the Economic Commission for Europe (ECE) and its subsidiary bodies (in particular, documents TRANS/SC1/WP.29/R.242, 486 and 506), and on supplementary information provided by governmentally designated experts.

2. The regular elaboration and amendment of this annex will be necessary in the light of continuously expanding experience with new vehicles incorporating low-emission technology and the development of alternative fuels, as well as with retrofitting and other strategies for existing vehicles. The annex cannot be an exhaustive statement of technical options; its aim is to provide guidance to Parties in identifying economically feasible technologies for fulfilling their obligations under the Protocol. Until other data become available, this annex concentrates on on-road vehicles only.

I. MAJOR SOURCES OF VOC EMISSIONS FROM MOTOR VEHICLES

3. Sources of VOC emissions from motor vehicles have been divided into: (a) tailpipe emissions; (b) evaporative and refuelling emissions; and (c) crankcase emissions.

4. Road transport (excluding petrol distribution) is a major source of anthropogenic VOC emissions in most ECE countries and contributes between 30 and 45% of total man-made VOC emissions in the ECE region as a whole. By far the largest source of road transport VOC emissions is the petrol-fuelled vehicle which accounts for 90% of total traffic emissions of VOCs (of which 30 to 50% are evaporative emissions). Evaporative and refuelling emissions result primarily from petrol use, and are considered very low in the case of diesel fuels.

II. GENERAL ASPECTS OF CONTROL TECHNOLOGIES FOR VOC EMISSIONS FROM ON-ROAD MOTOR VEHICLES

5. The motor vehicles considered in this annex are passenger cars, light-duty trucks, on-road heavy-duty vehicles, motor cycles and mopeds.

6. While this annex deals with both new and in-use vehicles, it is primarily focused on VOC-emission control for new vehicle types.

7. This annex also provides guidance on the influence of changes in petrol properties on evaporative VOC emissions. Fuel substitution (e.g. natural gas, liquefied petroleum gas (LPG), methanol) can also provide VOC-emission reductions but this is not considered in this annex.

8. Cost figures for the various technologies given are manufacturing cost estimates rather than retail prices.

9. It is important to ensure that vehicle designs are capable of meeting emission standards in service. This can be done through ensuring conformity of production, full useful-life durability, warranty of emission-control components, and recall of defective vehicles. For in-use vehicles, continued emission-control performance can also be ensured by an effective inspection and maintenance programme, and measures against tampering and misfuelling.

10. Emissions from in-use vehicles can be reduced through programmes such as fuel volatility controls, economic incentives to encourage the accelerated introduction of desirable technology, low-level oxygenated fuel blends, and retrofitting. Fuel volatility control is the single most effective measure that can be taken to reduce VOC emissions from in-use motor vehicles.

11. Technologies that incorporate catalytic converters require the use of unleaded fuel. Unleaded petrol should therefore be generally available.

12. Measures to reduce VOC and other emissions by the management of urban and long-distance traffic, though not elaborated in this annex, are important as an efficient additional approach to reducing VOC emissions. Key measures for traffic management aim at improving the modal split through tactical, structural, financial and restrictive elements.

13. VOC emissions from uncontrolled motor vehicles contain significant levels of toxic compounds, some of which are known carcinogens. The application of VOC reduction technologies (tailpipe, evaporative, refuelling and crankcase) reduces these toxic emissions in generally the same proportion as the VOC reductions achieved. The level of toxic emissions can also be reduced by modifying certain fuel parameters (e.g., reducing benzene levels in petrol).

III. CONTROL TECHNOLOGIES FOR TAILPIPE EMISSIONS

(a) Petrol-fuelled passenger cars and light-duty trucks

14. The main technologies for controlling VOC emissions are listed in table 1.

15. The basis for comparison in table 1 is technology option B, representing non-catalytic technology designed in response to the requirements of the United States for 1973/1974 or of ECE regulation 15-04 pursuant to the 1958 Agreement concerning the Adoption of Uniform Conditions of Approval and Reciprocal Recognition of Approval for Motor Vehicles Equipment and Parts. The table also presents achievable emission levels for open- and closed-loop catalytic control as well as their cost implications.

16. The "uncontrolled" level (A) in table 1 refers to the 1970 situation in the ECE region, but may still prevail in certain areas.

17. The emission level in table 1 reflects emissions measured using standard test procedures. Emissions from vehicles on the road may differ significantly because of the effect, inter alia, of ambient temperature, operating conditions, fuel properties, and maintenance. However, the reduction potential indicated in table 1 is considered representative of reductions achievable in use.

18. The best currently available technology is option D. This technology achieves large reductions of VOC, CO and NO_x emissions.

19. In response to regulatory programmes for further VOC emission reductions (e.g. in Canada and the United States), advanced closed-loop three-way catalytic converters are being developed (option E). These improvements will focus on more powerful engine-management controls, improved catalysts, on-board diagnostic systems (OBD) and other advances. These systems will become best available technology by the mid-1990s.

20. A special category are two-stroke engine cars which are used in parts of Europe; these cars currently have very high VOC emissions. Hydrocarbon emissions from two-stroke engines are typically between 45.0 and 75.0 grams per test, according to the European driving cycle. Attempts are under way to apply engine modifications and catalytic after-treatment to this type of engine. Data are needed on the reduction potentials and durability of these solutions. Furthermore, different two-stroke engine designs are currently being developed that have the potential for lower emissions.

TABLE 1. TAILPIPE EMISSION CONTROL TECHNOLOGIES FOR PETROL-FUELLED PASSENGER CARS AND LIGHT-DUTY TRUCKS

Technology option		Emission level (%)		Cost*
		4-stroke	2-stroke	($US)
A.	Uncontrolled situation	400	900	-
B.	Engine modifications (engine design, carburetion and ignition systems, air injection)	100 (1.8 g/km)	-	**
C.	Open-loop catalyst	50	-	150-200
D.	Closed-loop three-way catalyst	10-30	-	250-450***
E.	Advanced closed-loop three-way catalyst	6	-	350-600***

* Additional production-cost estimates per vehicle, relative to technology option B.
** Costs for engine modifications from options A to B are estimated at $US 40-100.
*** Under technology options D and E, CO and NO_x emissions are also substantially reduced, in addition to VOC reductions. Technology options B and C can also result in some CO and/or NO_x control.

(b) Diesel-fuelled passenger cars and trucks

21. Diesel-fuelled passenger cars and light-duty trucks have very low VOC emissions, generally lower than those resulting from closed-loop catalytic control on petrol-fuelled cars. However, their emissions of particulates and NO_x are higher.

22. No ECE country currently has rigorous tailpipe VOC control programmes for heavy-duty diesel-fuelled vehicles, because of their generally low VOC emission rates. However, many countries have diesel particulate control programmes, and the technology that is employed to control particulates (e.g., combustion chamber and injection system improvements) has the net end result of lowering VOC emissions as well.

23. Tailpipe VOC emission rates from heavy-duty diesel-fuelled vehicles are expected to be reduced by two thirds as the result of a vigorous particulate control programme.

24. VOC species emitted from diesel-fuelled engines are different from those emitted by petrol-fuelled engines.

(c) Motor cycles and mopeds

25. VOC emission control technologies for motor cycles are summarized in table 2. Current ECE regulations (R.40) can normally be met without requiring reduction technologies. The future standards of Austria and Switzerland may require oxidizing catalytic converters for two-stroke engines in particular.

26. For two-stroke mopeds with small oxidizing catalytic converters, a VOC-emission reduction of 90% is achievable, at additional production costs of $US 30-50. In Austria and Switzerland, standards requiring this technology are already in force.

TABLE 2. TAILPIPE EMISSION CONTROL TECHNOLOGIES AND PERFORMANCE FOR MOTOR CYCLES

Technology option		Emission level (%)		Cost ($US)*
		2-stroke	4-stroke	
A.	Uncontrolled	400 (9.6 g/km)	100 (2 g/km)	-
B.	Best non-catalyst	200	60	-
C.	Oxidizing catalytic converter, secondary air	30-50	20	50
D.	Closed-loop three-way catalytic converter	not applicable	10**	350

* Additional production-cost estimates per vehicle.
** Expected to be available by 1991 for a few specific motor cycle types (prototypes already constructed and tested).

IV. CONTROL TECHNOLOGIES FOR EVAPORATIVE AND REFUELLING EMISSIONS

27. Evaporative emissions consist of fuel vapour emitted from the engine and fuel system. They are divided into: (a) diurnal emissions, which result from the "breathing" of the fuel tank as it is heated and cooled over the course of a day; (b) hot-soak emissions produced by the heat from the engine after it is shut down; (c) running losses from the fuel system while the vehicle is in operation; and (d) resting losses such as from open-bottom canisters (where used) and from some plastic fuel-system materials which are reportedly subject to permeation losses, in which petrol slowly diffuses through the material.

28. The control technology typically used for evaporative emissions from petrol-fuelled vehicles includes a charcoal canister (and associated plumbing) and a purge system to burn the VOCs in a controlled manner in the engine.

29. Experience with existing evaporative-emission control programmes in the United States indicates that evaporative-emission control systems have not provided the degree of control desired, especially during severe ozone-prone days. This is partly because the volatility of in-use petrol is much higher than that of certification-test petrol. It is also due to an inadequate test procedure that resulted in inadequate control technology. The United States evaporative-emission control programme in the 1990s will emphasize reduced-volatility fuels for use in summer and an improved test procedure to encourage advanced evaporative control systems that will result in the in-use control of the four emission sources mentioned in paragraph 27 above. For countries with high volatility petrol, the single most cost-effective measure to reduce VOC emissions is to reduce volatility of in-use petrol.

30. In general, effective evaporative-emission control requires the consideration of: (a) control of petrol volatility, adjusted to climatic conditions; and (b) an appropriate test procedure.

31. A list of control options, reduction potentials and cost estimates is given in table 3, with option B as the best available control technology at present. Option C will soon become best available technology and will represent a significant improvement over option B.

32. The fuel economy benefits associated with evaporative-emission controls are estimated at less than 2%. The benefits are due to the higher energy density, and low Reid-vapour-pressure (RVP) of fuel, and to the combustion rather than venting of captured vapours.

33. In principle, emissions that are released during refuelling of vehicles can be recovered by systems installed at petrol stations (Stage II) or by systems on board of vehicles. Controls at petrol stations are a well-established technology, while on-board systems have been demonstrated using several prototypes. The question of in-use safety of on-board vapour recovery systems is presently under study. It may be appropriate to develop safety performance standards in conjunction with on-board vapour recovery systems to assure their safe design. Stage II controls can be implemented more quickly since service stations in a given area can be fitted with these controls. Stage II controls benefit all petrol-fuelled vehicles while on-board systems only benefit new vehicles.

34. While evaporative emissions from motor cycles and mopeds are at present uncontrolled in the ECE region, the same general control technologies as for petrol-fuelled cars can be applied.

TABLE 3. EVAPORATIVE-EMISSION CONTROL MEASURES AND REDUCTION POTENTIALS FOR PETROL-FUELLED PASSENGER CARS AND LIGHT-DUTY TRUCKS

Technology option	VOC reduction potential (%) 1/	Cost ($US) 2/
A. Small canister, lenient RVP 3/ limits, 1980s US Test Procedure	<80	20
B. Small canister, stringent RVP limits, 4/ 1980s US Test Procedure	80-95	20
C. Advanced evaporative controls, stringent RVP limits, 4/ 1990s US Test Procedure 5/	>95	33

1/ Relative to uncontrolled situation.
2/ Additional production-cost estimates per vehicle.
3/ Reid vapour pressure.
4/ Based on United States data, assuming an RVP limit of 62 kPa during warm season at a cost of $US 0.0038 per litre. Taking account of the fuel economy benefit associated with low RVP petrol, the adjusted cost estimate is $US 0.0012 per litre.
5/ United States Test Procedure in the 1990s will be designed for the more effective control of multiple diurnal emissions, running losses, operation under high ambient temperature, hot-soak conditions following extended operation, and resting losses.

ANNEX IV

CLASSIFICATION OF VOLATILE ORGANIC COMPOUNDS (VOCs) BASED ON THEIR PHOTOCHEMICAL OZONE CREATION POTENTIAL (POCP)

1. This annex summarizes the information available and identifies the still existing elements to develop in order to guide the work to be carried out. It is based on information regarding hydrocarbons and ozone formation contained in two notes prepared for the Working Group on Volatile Organic Compounds (EB.AIR/WG.4/R.11 and R.13/Rev.1); on the results of further research carried out, in particular in Austria, Canada, Germany, Netherlands, Sweden, the United Kingdom, the United States of America and the EMEP Meteorological Synthesizing Centre-West (MSC-W); and on supplementary information provided by governmentally designated experts.

2. The final aim of the POCP approach is to provide guidance on regional and national control policies for volatile organic compounds (VOCs), taking into account the impact of each VOC species as well as sectoral VOC emissions in episodic ozone formation expressed in terms of the photochemical ozone creation potential (POCP), which is defined as the change in photochemical ozone production due to a change in emission of that particular VOC. POCP may be determined by photochemical model calculations or by laboratory experiments. It serves to illustrate different aspects of episodic oxidant formation, e.g. peak ozone or accumulated ozone production during an episode.

3. The POCP concept is being introduced because there is a large variation between the importance of particular VOCs in the production of ozone during episodes. A fundamental feature of the concept is that, in the presence of sunlight and NO_x, each VOC produces ozone in a similar way despite large variations in the circumstances under which ozone is produced.

4. Different photochemical model calculations indicate that substantial reduction of VOCs and NO_x emissions are necessary (order of magnitude above 50% in order to achieve significant ozone reduction). Moreover the maximum concentrations of ozone near the ground are reduced in a less than proportional way when VOC emissions are reduced. This effect is should in principle by theoretical scenario calculation. When all species are reduced by the same proportion, maximum ozone values (above 75 ppb hourly average) in Europe are reduced depending on the existing ozone level by only 10-15% if the mass of non-methane man-made VOC emissions is reduced by 50%. By contrast, if emissions of the most important (in terms of POCP and mass values or reactivity) non-methane man-made VOC species were reduced by 50% (by mass), the calculated result is a 20-30% reduction of peak episodic ozone concentration. This confirms the merits of a POCP approach to determine priorities for VOC emission control and clearly shows that VOCs may at least be divided into large categories, according to their importance in episodic ozone formation.

5. POCP values and reactivity scales have been calculated as estimates, each based on a particular scenario (e.g. emission increases and decreases, air mass trajectories) and targeted towards a particular objective (e.g. peak ozone concentration, integrated ozone, average ozone). POCP values and reactivity scales are dependent on chemical mechanisms. Clearly there are differences between the different estimates of POCPs, which in some cases can span more than a factor of four. The POCP numbers are not constant but vary in space and time. To give an example: the calculated POCP of ortho-xylene in the so-called "France-Sweden" trajectory has a value of 41 on the first day and of 97 on the fifth day of the travelling time. According to calculations of the Meteorological Synthesizing Centre-West (MSC-W) of EMEP, the POCP of ortho-xylene for O_3 over 60 ppb, varies between 54 and 112 (5 to 95 percentiles) for the grids of the EMEP area. The variation of the POCP in time and space is not only caused by the VOC composition of the air parcel due to man-made emissions but is also a result of meteorological variations. The fact is that any reactive VOC can contribute to the episodical formation of photochemical oxidants to a higher or lower extent, depending on the concentrations of NO_x and VOC and meteorological parameters. Hydrocarbons with very low reactivity, like methane, methanol, ethane and some chlorinated hydrocarbons contribute in a negligible manner to this process. There are also differences as a result of meteorological variations between particular days and over Europe as a whole. POCP values are implicitly dependent on how emission inventories are calculated. Currently there is no consistent method or information available across Europe. Clearly, further work has to be done on the POCP approach.

6. Natural isoprene emissions from deciduous trees, together with nitrogen oxides (NO_x) mainly from man-made sources, can make a significant contribution to ozone formation in warm summer weather in areas with a large coverage of deciduous trees.

7. In table 1, VOC species are grouped according to their importance in the production of episodic peak ozone concentrations. Three groups have been selected. Importance in table 1 is expressed on the basis of VOC emission per unit mass. Some hydrocarbons, such as n-butane, become important because of their mass emission although they may not appear so according to their OH reactivity.

8. Tables 2 and 3 show the impacts of individual VOCs expressed as indices relative to the impact of a single species (ethylene) which is given an index of 100. They indicate how such indices, i.e. POCPs, may give guidance for assessing the impact of different VOC emission reductions.

9. Table 2 shows averaged POCPs for each major source category based on a central POCP estimate for each VOC species in each source category. Emission inventories independently determined in the United Kingdom and Canada have been used in this compilation and presentation. For many sources, e.g. motor vehicles, combustion installations, and many industrial processes, mixtures of hydrocarbons are emitted. Measures to reduce specifically the VOC compounds identified in the POCP approach as very reactive are in most cases unavailable. In practice, most of the possible reduction measures will reduce emissions by mass irrespective of their POCPs.

10. Table 3 compares a number of different weighting schemes for a selected range of VOC species. In assigning priorities within a national VOC control programme, a number of indices may be used to focus on particular VOCs. The simplest but least effective approach is to focus on the relative mass emission, or relative ambient concentration.

TABLE 1. CLASSIFICATION OF VOCs INTO THREE GROUPS ACCORDING TO THEIR IMPORTANCE IN EPISODIC OZONE FORMATION

More important	
Alkenes	
Aromatics	
Alkanes	> C6 alkanes except 2,3 dimethylpentane
Aldehydes	All aldehydes except benzaldehyde
Biogenics	Isoprene
Less important	
Alkanes	C3 - C5 alkanes and 2,3 dimethylpentane
Ketones	Methyl ethyl ketone and methyl t-butyl ketone
Alcohols	Ethanol
Esters	All esters except methyl acetate
Least important	
Alkanes	Methane and ethane
Alkynes	Acetylene
Aromatics	Benzene
Aldehydes	Benzaldehyde
Ketones	Acetone
Alcohols	Methanol
Esters	Methyl acetate
Chlorinated hydrocarbons	Methyl chloroform, Methylene chloride, Trichloroethylene and tetrachloroethylene

11. Relative weighting based on OH reactivity addresses some but by no means all of the important aspects of the atmospheric reactions which generate ozone in the presence of NO_x and sunlight. The SAPRC (Statewide Air Pollution Research Centre) weightings address the situation in California. Because of differences in the model conditions appropriate to the Los Angeles basin and Europe, major differences in the fates of photochemical, labile species, such as aldehyde, result. POCPs calculated with photochemical models in the Netherlands, United States of America, United Kingdom, Sweden and by EMEP (MSC-W) address different aspects of the ozone problem in Europe.

12. Some of the less-reactive solvents cause other problems, e.g. they are extremely harmful to human health, difficult to handle, persistent, can cause negative environmental effects at other levels (e.g. in the free troposphere or the stratosphere). In many cases the best available technology for reducing solvent emission is the application of non-solvent using systems.

13. Reliable VOC emission inventories are essential to the formulation of any cost-effective VOC control policies and in particular those based on the POCP approach. National VOC emissions should therefore be specified according to sectors, at least following guidelines specified by the Executive Body, and should as far as possible be complemented by data on species and time variations of emissions.

TABLE 2. SECTORAL POCPs OF THE VARIOUS EMISSION SECTORS AND THE PERCENTAGE BY MASS OF VOCs IN EACH OZONE CREATION CLASS

Sector	Sectoral POCP		Percentage mass in each ozone creation class			
	Canada	United Kingdom	More	Less Important	Least	Unknown
Petrol-engined vehicle exhaust	63	61	76	16	7	1
Diesel vehicle exhaust	60	59	38	19	3	39
Petrol-engined vehicle evaporation	-	51	57	29	2	12
Other transport	63	-	-	-	-	-
Stationary combustion	-	54	34	24	24	18
Solvent usage	42	40	49	26	21	3
Surface coating	48	51	-	-	-	-
Industrial process emissions	45	32	4	41	0	55
Industrial chemicals	70	63	-	-	-	-
Petroleum refining and distribution	54	45	55	42	1	2
Natural gas leakage	-	19	24	8	66	2
Agriculture	-	40	-	-	100	-
Coal mining	-	0	-	-	100	-
Domestic waste landfill	-	0	-	-	100	-
Dry cleaning	29	-	-	-	-	-
Wood combustion	55	-	-	-	-	-
Slash burn	58	-	-	-	-	-
Food industry	-	37	-	-	-	-

TABLE 3. COMPARISON BETWEEN WEIGHTING SCHEMES (EXPRESSED RELATIVE TO ETHYLENE = 100) FOR 85 VOC SPECIES

VOC	OH Scale [a]	Canada by mass [b]	SAPRC MIR [c]	UK POCP [d]	UK range [e]	Sweden max. diff. [f]	Sweden 0-4 days [g]	EMEP [h]	LOTOS [i]
Methane	0.1	-	0	0.7	0-3	-	-	-	-
Ethane	3.2	91.2	2.7	8.2	2-30	17.3	12.6	5-24	6-25
Propane	9.3	100	6.2	42.1	16-124	60.4	50.3	-	-
n-Butane	15.3	212	11.7	41.4	15-115	55.4	46.7	22-85	25-87
i-Butane	14.2	103	15.7	31.5	19-59	33.1	41.1	-	-
n-Pentane	19.4	109	12.1	40.8	9-105	61.2	29.8	-	-
i-Pentane	18.8	210	16.2	29.6	12-68	36.0	31.4	-	-
n-Hexane	22.5	71	11.5	42.1	10-151	78.4	45.2	-	-
2-Methylpentane	22.2	100	17.0	52.4	19-140	71.2	52.9	-	-
3-Methylpentane	22.6	47	17.7	43.1	11-125	64.7	40.9	-	-
2,2-Dimethylbutane	10.5	-	7.5	25.1	12-49	-	-	-	-
2,3-Dimethylbutane	25.0	-	13.8	38.4	25-65	-	-	-	-
n-Heptane	25.3	41	9.4	52.9	13-165	79.1	51.8	-	-
2-Methylhexane	18.4	21	17.0	49.2	11-159	-	-	-	-
3-Methylhexane	18.4	24	16.0	49.2	11-157	-	-	-	-
n-Octane	26.6	-	7.4	49.3	12-151	69.8	46.1	-	-
2-Methylheptane	26.6	-	16.0	46.9	12-146	69.1	45.7	-	-
n-Nonane	27.4	-	6.2	46.9	10-148	63.3	35.1	-	-
2-Methyloctane	27.3	-	13.2	50.5	12-147	66.9	45.4	-	-
n-Decane	27.6	-	5.3	46.4	8-156	71.9	42.2	-	-
2-Methylnonane	27.9	-	11.7	44.8	8-153	71.9	42.3	-	-
n-Undecane	29.6	21	4.7	43.6	8-144	66.2	38.6	-	-
n-Duodecane	28.4	-	4.3	41.2	7-138	57.6	31.1	-	-
Methylcyclohexane	35.7	18	22.3	-	-	40.3	38.6	-	-
Methylene chloride	-	-	-	1	0-3	0	0	-	-
Chloroform	-	-	-	-	-	0.7	0.4	-	-
Methyl chloroform	-	-	-	0.1	0-1	0.2	0.2	-	-
Trichloroethylene	-	-	-	6.6	1-13	8.6	11.1	-	-
Tetrachloroethylene	-	-	-	0.5	0-2	1.4	1.4	-	-
Allyl chloride	-	-	-	-	-	56.1	48.3	-	-

TABLE 3. COMPARISON BETWEEN WEIGHTING SCHEMES (EXPRESSED RELATIVE TO ETHYLENE = 100) FOR 85 VOC SPECIES (Continued)

VOC	OH Scale [a]	Canada by mass [b]	SAPRC MIR [c]	UK POCP [d]	UK range [e]	Sweden max. diff. [f]	Sweden 0-4 days [g]	EMEP [h]	LOTOS [i]
Methanol	10.9	-	7	12.3	9-21	16.5	21.3	-	-
Ethanol	25.5	-	15	26.8	4-89	44.6	22.5	9-58	20-71
i-Propanol	30.6	-	7	-	-	17.3	20.3	-	-
Butanol	38.9	-	30	-	-	65.5	21.4	-	-
i-Butanol	45.4	-	14	-	-	38.8	25.5	-	-
Ethylene glycol	41.4	-	21	-	-	-	-	-	-
Propylene glycol	55.2	-	18	-	-	-	-	-	-
But-2-diol	-	-	-	-	-	28.8	6.6	-	-
Dimethyl ether	22.3	-	11	-	-	28.8	34.3	-	-
Methyl-t-butyl ether	11.1	-	8	-	-	-	-	-	-
Ethyl-t-butyl ether	25.2	-	26	-	-	-	-	-	-
Acetone	1.4	-	7	17.8	10-27	17.3	12.4	-	-
Methyl ethyl ketone	5.5	-	14	47.3	17-80	38.8	17.8	-	-
Methyl-i-butyl ketone	-	-	-	-	-	67.6	31.8	-	-
Methyl acetate	-	-	-	2.5	0-7	5.8	6.7	-	-
Ethyl acetate	-	-	-	21.8	11-56	29.5	29.4	-	-
i-Propyl acetate	-	-	-	21.5	14-36	-	-	-	-
n-Butyl acetate	-	-	-	32.3	14-91	43.9	32.0	-	-
i-Butyl acetate	-	-	-	33.2	21-59	28.8	35.3	-	-
Propylene glycol methyl Ether	-	-	-	-	-	77.0	49.1	-	-
Propylene glycol methyl Ether acetate	-	-	-	-	-	30.9	15.7	-	-
Ethylene	100	100	100	100	100	100	100	100	100
Propylene	217	44	125	103	75-163	73.4	59.9	69-138	55-120
1-Butene	194	32	115	95.9	57-185	79.9	49.5	-	-

TABLE 3. COMPARISON BETWEEN WEIGHTING SCHEMES (EXPRESSED RELATIVE TO ETHYLENE = 100) FOR 85 VOC SPECIES (Continued)

VOC	OH	Canada	SAPRC	UK	UK	Sweden		EMEP	LOTOS
	Scale [a]	by mass [b]	MIR [c]	POCP [d]	range [e]	max. diff. [f]	0-4 days [g]	[h]	[i]
2-Butene	371	-	136	99.2	82-157	78.4	43.6	-	-
1-Pentene	148	-	79	105.9	40-288	72.7	42.4	-	-
2-Pentene	327	-	79	93.0	65-160	77.0	38.1	-	-
2-Methyl-1-butene	300	-	70	77.7	52-113	69.1	18.1	-	-
2-Methyl-2-butene	431	24	93	77.9	61-102	93.5	45.3	-	-
3-Methyl-1-butene	158	-	79	89.5	60-154	-	-	-	-
Isobutene	318	50	77	64.3	58-76	79.1	58.0	-	-
Isoprene	515	-	121	-	-	53.2	58.3	-	-
Acetylene	10.4	82	6.8	16.8	10-42	27.3	36.8	-	-
Benzene	5.7	71	5.3	18.9	11-45	31.7	40.2	-	-
Toluene	23.4	218	34	56.3	41-83	44.6	47.0	-	-
o-Xylene	48.3	38	87	66.6	41-97	42.4	16.7	54-112	26-67
m-Xylene	80.2	53	109	99.3	78-135	58.3	47.4	-	-
p-Xylene	49.7	53	89	88.8	63-180	61.2	47.2	-	-
Ethylbenzene	25	32	36	59.3	35-114	53.2	50.4	-	-
1,2,3-Trimethyl benzene	89	-	119	117	76-175	69.8	29.2	-	-
1,2,4-Trimethyl benzene	107	44	119	120	86-176	68.3	33.0	-	-
1,3,5-Trimethyl benzene	159	-	140	115	74-174	69.1	33.0	-	-
o-Ethyltoluene	35	-	96	66.8	31-130	59.7	40.8	-	-
m-Ethyltoluene	50	-	96	79.4	41-140	62.6	40.1	-	-
p-Ethyltoluene	33	-	96	72.5	36-135	62.6	44.3	-	-
n-Propylbenzene	17	-	28	49.2	25-110	51.1	45.4	-	-
i-Propylbenzene	18	-	30	56.5	35-105	51.1	52.3	-	-
Formaldehyde	104	-	117	42.1	22-58	42.4	26.1	-	-
Acetaldehyde	128	-	72	52.7	33-122	53.2	18.6	-	-
Proprionaldehyde	117	-	87	60.3	28-160	65.5	17.0	-	-
Butyraldehyde	124	-	-	56.8	16-160	64.0	17.1	-	-

TABLE 3. COMPARISON BETWEEN WEIGHING SCHEMES (EXPRESSED RELATIVE TO ETHYLENE = 100) FOR 85 VOC SPECIES (Continued)

VOC	OH Scale [a]	Canada by mass [b]	SAPRC MIR [c]	UK POCP [d]	UK range [e]	Sweden max. diff. [f]	Sweden 0-4 days [g]	EMEP [h]	LOTOS [i]
i-Butyraldehyde	144	-	-	63.1	38-128	58.3	30.0	-	-
Valeraldehyde	112	-	-	68.6	0-268	61.2	32.1	-	-
Acrolein	-	-	-	-	-	120.1	82.3	-	-
Benzaldehyde	43	-	-10	-33.4	-82-(-12)	-	-	-	-

[a] OH + VOC rate coefficient divided by molecular weight.
[b] Ambient VOC concentrations at 18 sites in Canada expressed on mass basics.
[c] Maximum Incremental Reactivity (MIR) based on California scenarios, Statewide Air pollution Research Centre, Los Angeles, USA.
[d] Average POCP based on three scenarios and 9 days; FRG-Ireland, France-Sweden and UK.
[e] Range of POCPs based on three scenarios and 11 days.
[f] POCPs calculated for a single source in Sweden producing maximum ozone difference.
[g] POCPs calculated for a single source in Sweden using average difference in ozone over 4 days.
[h] Range (5th-95th percentile) of POCPs calculated over EMEP grid.
[i] Range (20th-80th percentile) of POCPs calculated over LOTOS grid.

$$POCP = \frac{\frac{a}{b}}{\frac{c}{d}} \times 100$$

where

(a) - Change in photochemical oxidant formation due to a change in a VOC emission
(b) - Integrated VOC emission up to that time
(c) - Change in photochemical oxidant formation due to a change in ethylene emissions
(d) - Integrated ethylene emission up to that time

It is a quantity derived from a photochemical ozone model by following the photochemical ozone production with and without the presence of an individual hydrocarbon. The difference in ozone concentrations between such pairs of model calculations is a measure of the contribution that VOC makes in ozone formation.

United Nations Convention on the Law of the Sea, Montego Bay, 1982

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Not in force

Depositary: Secretary-General of the United Nations

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UNITED NATIONS CONVENTION ON THE LAW OF THE SEA

The States Parties to this Convention,

Prompted by the desire to settle, in a spirit of mutual understanding and co-operation, all issues relating to the law of the sea and aware of the historic significance of this Convention as an important contribution to the maintenance of peace, justice and progress for all peoples of the world,

Noting that developments since the United Nations Conferences on the Law of the Sea held at Geneva in 1958 and 1960 have accentuated the need for a new and generally acceptable Convention on the law of the sea,

Conscious that the problems of ocean space are closely interrelated and need to be considered as a whole,

Recognizing the desirability of establishing through this Convention, with due regard for the sovereignty of all States, a legal order for the seas and oceans which will facilitate international communication, and will promote the peaceful uses of the seas and oceans, the equitable and efficient utilization of their resources, the conservation of their living resources, and the study, protection and preservation of the marine environment,

Bearing in mind that the achievement of these goals will contribute to the realization of a just and equitable international economic order which takes into account the interests and needs of mankind as a whole and, in particular, the special interests and needs of developing countries, whether coastal or land-locked,

Desiring by this Convention to develop the principles embodied in resolution 2749 (XXV) of 17 December 1970 in which the General Assembly of the United Nations solemnly declared inter alia that the area of the sea-bed and ocean floor and the subsoil thereof, beyond the limits of national jurisdiction, as well as its resources, are the common heritage of mankind, the exploration and exploitation of which shall be carried out for the benefit of mankind as a whole, irrespective of the geographical location of States,

Believing that the codification and progressive development of the law of the sea achieved in this Convention will contribute to the strengthening of peace, security, co-operation and friendly relations among all nations in conformity with the principles of justice and equal rights and will promote the economic and social advancement of all peoples of the world, in accordance with the Purposes and Principles of the United Nations as set forth in the Charter,

Affirming that matters not regulated by this Convention continue to be governed by the rules and principles of general international law,

Have agreed as follows:

PART I

INTRODUCTION

Article 1
Use of terms and scope

1. For the purposes of this Convention:

(1) "Area" means the sea-bed and ocean floor and subsoil thereof, beyond the limits of national jurisdiction;

(2) "Authority" means the International Sea-Bed Authority;

(3) "activities in the Area" means all activities of exploration for, and exploitation of, the resources of the Area;

(4) "pollution of the marine environment" means the introduction by man, directly or indirectly, of substances or energy into the marine environment, including estuaries, which results or is likely to result in such deleterious effects as harm to living resources and marine life, hazards to human health, hindrance to marine activities, including fishing and other legitimate uses of the sea, impairment of quality for use of sea water and reduction of amenities;

(5) (a) "dumping" means:

(i) any deliberate disposal of wastes or other matter from vessels, aircraft, platforms or other man-made structures at sea;

(ii) any deliberate disposal of vessels, aircraft, platforms or other man-made structures at sea;

(b) "dumping" does not include:

(i) the disposal of wastes or other matter incidental to, or derived from the normal operations of vessels, aircraft, platforms or other man-made structures at sea and their equipment, other than wastes or other matter transported by or to vessels, aircraft, platforms or other man-made structures at sea, operating for the purpose of disposal of such matter or derived from the treatment of such wastes or other matter on such vessels, aircraft, platforms or structures;

(ii) placement of matter for a purpose other than the mere disposal thereof, provided that such placement is not contrary to the aims of this Convention.

2. (1) "States Parties" means States which have consented to be bound by this Convention and for which this Convention is in force.

(2) This Convention applies mutatis mutandis to the entities referred to in article 305, paragraph 1(b), (c), (d), (e) and (f), which become Parties to this Convention in accordance with the conditions relevant to each, and to that extent "States Parties" refers to those entities.

PART II

TERRITORIAL SEA AND CONTIGUOUS ZONE

SECTION 1. GENERAL PROVISIONS

Article 2
Legal status of the territorial sea, of the air space over the territorial sea and of its bed and subsoil

1. The sovereignty of a coastal State extends, beyond its land territory and internal waters and, in the case of an archipelagic State, its archipelagic waters, to an adjacent belt of sea, described as the territorial sea.

2. This sovereignty extends to the air space over the territorial sea as well as to its bed and subsoil.

3. The sovereignty over the territorial sea is exercised subject to this Convention and to other rules of international law.

SECTION 2. LIMITS OF THE TERRITORIAL SEA

Article 3
Breadth of the territorial sea

Every State has the right to establish the breadth of its territorial sea up to a limit not exceeding 12 nautical miles, measured from baselines determined in accordance with this Convention.

Article 4
Outer limit of the territorial sea

The outer limit of the territorial sea is the line every point of which is at a distance from the nearest point of the baseline equal to the breadth of the territorial sea.

Article 5
Normal baseline

Except where otherwise provided in this Convention, the normal baseline for measuring the breadth of the territorial sea is the low-water line along the coast as marked on large-scale charts officially recognized by the coastal State.

Article 6
Reefs

In the case of islands situated on atolls or of islands having fringing reefs, the baseline for measuring the breadth of the territorial sea is the seaward low-water line of the reef, as shown by the appropriate symbol on charts officially recognized by the coastal State.

Article 7
Straight baselines

1. In localities where the coastline is deeply indented and cut into, or if there is a fringe of islands along the coast in its immediate vicinity, the method of straight baselines joining appropriate points may be employed in drawing the baseline from which the breadth of the territorial sea is measured.

2. Where because of the presence of a delta and other natural conditions the coastline is highly unstable, the appropriate points may be selected along the furthest seaward extent of the low-water line and, notwithstanding subsequent regression of the low-water line, the straight baselines shall remain effective until changed by the coastal State in accordance with this Convention.

3. The drawing of straight baselines must not depart to any appreciable extent from the general direction of the coast, and the sea areas lying within the lines must be sufficiently closely linked to the land domain to be subject to the régime of internal waters.

4. Straight baselines shall not be drawn to and from low-tide elevations, unless lighthouses or similar installations which are permanently above sea level have been built on them or except in instances where the drawing of baselines to and from such elevations has received general international recognition.

5. Where the method of straight baselines is applicable under paragraph 1, account may be taken, in determining particular baselines, of economic interests peculiar to the region concerned, the reality and the importance of which are clearly evidenced by long usage.

6. The system of straight baselines may not be applied by a State in such a manner as to cut off the territorial sea of another State from the high seas or an exclusive economic zone.

Article 8
Internal waters

1. Except as provided in Part IV, waters on the landward side of the baseline of the territorial sea form part of the internal waters of the State.

2. Where the establishment of a straight baseline in accordance with the method set forth in article 7 has the effect of enclosing as internal water areas which had not previously been considered as such, a right of innocent passage as provided in this Convention shall exist in those waters.

Article 9
Mouths of rivers

If a river flows directly into the sea, the baseline shall be a straight line across the mouth of the river between points on the low-water line of its banks.

Article 10
Bays

1. This article relates only to bays the coasts of which belong to a single State.

2. For the purposes of this Convention, a bay is a well-marked indentation whose penetration is in such proportion to the width of its mouth as to contain land-locked waters and constitute more than a mere curvature of the coast. An indentation shall not, however, be regarded as a bay unless its area is as large as, or larger than, that of the semi-circle whose diameter is a line drawn across the mouth of that indentation.

3. For the purpose of measurement, the area of an indentation is that lying between the low-water mark around the shore of the indentation and a line joining the low-water mark of its natural entrance points. Where, because of

the presence of islands, an indentation has more than one mouth, the semi-circle shall be drawn on a line as long as the sum total of the lengths of the lines across the different mouths. Islands within an indentation shall be included as if they were part of the water area of the indentation.

4. If the distance between the low-water marks of the natural entrance points of a bay does not exceed 24 nautical miles, a closing line may be drawn between these two low-water marks, and the waters enclosed thereby shall be considered as internal waters.

5. Where the distance between the low-water marks of the natural entrance points of a bay exceeds 24 nautical miles, a straight baseline of 24 nautical miles shall be drawn within the bay in such a manner as to enclose the maximum area of water that is possible with a line of that length.

6. The foregoing provisions do not apply to so-called "historic" bays, or in any case where the system of straight baselines provided for in article 7 is applied.

Article 11
Ports

For the purpose of delimiting the territorial sea, the outermost permanent harbour works which form an integral part of the harbour system are regarded as forming part of the coast. Off-shore installations and artificial islands shall not be considered as permanent harbour works.

Article 12
Roadsteads

Roadsteads which are normally used for the loading, unloading and anchoring of ships, and which would otherwise be situated wholly or partly outside the outer limit of the territorial sea, are included in the territorial sea.

Article 13
Low-tide elevations

1. A low-tide elevation is a naturally formed area of land which is surrounded by and above water at low tide but submerged at high tide. Where a low-tide elevation is situated wholly or partly at a distance not exceeding the breadth of the territorial sea from the mainland or an island, the low-water line on that elevation may be used as the baseline for measuring the breadth of the territorial sea.

2. Where a low-tide elevation is wholly situated at a distance exceeding the breadth of the territorial sea from the mainland or an island, it has no territorial sea of its own.

Article 14
Combination of methods for determining baselines

The coastal State may determine baselines in turn by any of the methods provided for in the foregoing articles to suit different conditions.

Article 15
Delimitation of the territorial sea between States with opposite or adjacent coasts

Where the coasts of two States are opposite or adjacent to each other, neither of the two States is entitled, failing agreement between them to the contrary, to extend its territorial sea beyond the median line every point of which is equidistant from the nearest points on the baselines from which the breadth of the territorial seas of each of the two

States is measured. The above provision does not apply, however, where it is necessary by reason of historic title or other special circumstances to delimit the territorial seas of the two States in a way which is at variance therewith.

Article 16
Charts and lists of geographical co-ordinates

1. The baselines for measuring the breadth of the territorial sea determined in accordance with articles 7, 9 and 10, or the limits derived therefrom, and the lines of delimitation drawn in accordance with articles 12 and 15 shall be shown on charts of a scale or scales adequate for ascertaining their position. Alternatively, a list of geographical co-ordinates of points, specifying the geodetic datum, may be substituted.

2. The coastal State shall give due publicity to such charts or lists of geographical co-ordinates and shall deposit a copy of each such chart or list with the Secretary-General of the United Nations.

SECTION 3. INNOCENT PASSAGE IN THE TERRITORIAL SEA

SUBSECTION A. RULES APPLICABLE TO ALL SHIPS

Article 17
Right of innocent passage

Subject to this Convention, ships of all States, whether coastal or land-locked, enjoy the right of innocent passage through the territorial sea.

Article 18
Meaning of passage

1. Passage means navigation through the territorial sea for the purpose of:

(a) traversing that sea without entering internal waters or calling at a roadstead or port facility outside internal waters; or

(b) proceeding to or from internal waters or a call at such roadstead or port facility.

2. Passage shall be continuous and expeditious. However, passage includes stopping and anchoring, but only in so far as the same are incidental to ordinary navigation or are rendered necessary by force majeure or distress or for the purpose of rendering assistance to persons, ships or aircraft in danger or distress.

Article 19
Meaning of innocent passage

1. Passage is innocent so long as it is not prejudicial to the peace, good order or security of the coastal State. Such passage shall take place in conformity with this Convention and with other rules of international law.

2. Passage of a foreign ship shall be considered to be prejudicial to the peace, good order or security of the coastal State if in the territorial sea it engages in any of the following activities:

(a) any threat or use of force against the sovereignty, territorial integrity or political independence of the coastal State, or in any other manner in violation of the principles of international law embodied in the Charter of the United Nations;

(b) any exercise or practice with weapons of any kind;

(c) any act aimed at collecting information to the prejudice of the defence or security of the coastal State;

(d) any act of propaganda aimed at affecting the defence or security of the coastal State;

(e) the launching, landing or taking on board of any aircraft;

(f) the launching, landing or taking on board of any military device;

(g) the loading or unloading of any commodity, currency or person contrary to the customs, fiscal, immigration or sanitary laws and regulations of the coastal State;

(h) any act of wilful and serious pollution contrary to this Convention;

(i) any fishing activities;

(j) the carrying out of research or survey activities;

(k) any act aimed at interfering with any systems of communication or any other facilities or installations of the coastal State;

(l) any other activity not having a direct bearing on passage.

Article 20
Submarines and other underwater vehicles

In the territorial sea, submarines and other underwater vehicles are required to navigate on the surface and to show their flag.

Article 21
Laws and regulations of the coastal State relating to innocent passage

1. The coastal State may adopt laws and regulations, in conformity with the provisions of this Convention and other rules of international law, relating to innocent passage through the territorial sea, in respect of all or any of the following:

(a) the safety of navigation and the regulation of maritime traffic;

(b) the protection of navigational aids and facilities and other facilities or installations:

(c) the protection of cables and pipelines;

(d) the conservation of the living resources of the sea;

(e) the prevention of infringement of the fisheries laws and regulations of the coastal State;

(f) the preservation of the environment of the coastal State and the prevention, reduction and control of pollution thereof;

(g) marine scientific research and hydrographic surveys;

(h) the prevention of infringement of the customs, fiscal, immigration or sanitary laws and regulations of the coastal State.

2. Such laws and regulations shall not apply to the design, construction, manning or equipment of foreign ships unless they are giving effect to generally accepted international rules or standards.

3. The coastal State shall give due publicity to all such laws and regulations.

4. Foreign ships exercising the right of innocent passage through the territorial sea shall comply with all such laws and regulations and all generally accepted international regulations relating to the prevention of collisions at sea.

Article 22
Sea lanes and traffic separation schemes in the territorial sea

1. The coastal State may, where necessary having regard to the safety of navigation, require foreign ships exercising the right of innocent passage through its territorial sea to use such sea lanes and traffic separation schemes as it may designate or prescribe for the regulation of the passage of ships.

2. In particular, tankers, nuclear-powered ships and ships carrying nuclear or other inherently dangerous or noxious substances or materials may be required to confine their passage to such sea lanes.

3. In the designation of sea lanes and the prescription of traffic separation schemes under this article, the coastal State shall take into account:

(a) the recommendations of the competent international organization;

(b) any channels customarily used for international navigation;

(c) the special characteristics of particular ships and channels; and

(d) the density of traffic.

4. The coastal State shall clearly indicate such sea lanes and traffic separation schemes on charts to which due publicity shall be given.

Article 23
Foreign nuclear-powered ships and ships carrying nuclear or other inherently dangerous or noxious substances

Foreign nuclear-powered ships and ships carrying nuclear or other inherently dangerous or noxious substances shall, when exercising the right of innocent passage through the territorial sea, carry documents and observe special precautionary measures established for such ships by international agreements.

Article 24
Duties of the coastal State

1. The coastal State shall not hamper the innocent passage of foreign ships through the territorial sea except in accordance with this Convention. In particular, in the application of this Convention or of any laws or regulations adopted in conformity with this Convention, the coastal State shall not:

(a) impose requirements on foreign ships which have the practical effect of denying or impairing the right of innocent passage; or

(b) discriminate in form or in fact against the ships of any State or against ships carrying cargoes to, from or on behalf of any State.

2. The coastal State shall give appropriate publicity to any danger to navigation, of which it has knowledge, within its territorial sea.

Article 25
Rights of protection of the coastal State

1. The coastal State may take the necessary steps in its territorial sea to prevent passage which is not innocent.

2. In the case of ships proceeding to internal waters or a call at a port facility outside internal waters, the coastal State also has the right to take the necessary steps to prevent any breach of the conditions to which admission of those ships to internal waters or such a call is subject.

3. The coastal State may, without discrimination in form or in fact among foreign ships, suspend temporarily in specified areas of its territorial sea the innocent passage of foreign ships if such suspension is essential for the protection of its security, including weapons exercises. Such suspension shall take effect only after having been duly published.

Article 26
Charges which may be levied upon foreign ships

1. No charge may be levied upon foreign ships by reason only of their passage through the territorial sea.

2. Charges may be levied upon a foreign ship passing through the territorial sea as payment only for specific services rendered to the ship. These charges shall be levied without discrimination.

SUBSECTION B. RULES APPLICABLE TO MERCHANT SHIPS AND GOVERNMENT SHIPS OPERATED FOR COMMERCIAL PURPOSES

Article 27
Criminal jurisdiction on board a foreign ship

1. The criminal jurisdiction of the coastal State should not be exercised on board a foreign ship passing through the territorial sea to arrest any person or to conduct any investigation in connection with any crime committed on board the ship during its passage, save only in the following cases:

(a) if the consequences of the crime extend to the coastal State;

(b) if the crime is of a kind to disturb the peace of the country or the good order of the territorial sea;

(c) if the assistance of the local authorities has been requested by the master of the ship or by a diplomatic agent or consular officer of the flag State; or

(d) if such measures are necessary for the suppression of illicit traffic in narcotic drugs or psychotropic substances.

2. The above provisions do not affect the right of the coastal State to take any steps authorized by its laws for the purpose of an arrest or investigation on board a foreign ship passing through the territorial sea after leaving internal waters.

3. In the cases provided for in paragraphs 1 and 2, the coastal State shall, if the master so requests, notify a diplomatic agent or consular officer of the flag State before taking any steps, and shall facilitate contact between such agent or officer and the ship's crew. In cases of emergency this notification may be communicated while the measures are being taken.

4. In considering whether or in what manner an arrest should be made, the local authorities shall have due regard to the interests of navigation.

5. Except as provided in Part XII or with respect to violations of laws and regulations adopted in accordance with Part V, the coastal State may not take any steps on board a foreign ship passing through the territorial sea to arrest any person or to conduct any investigation in connection with any crime committed before the ship entered the territorial sea, if the ship, proceeding from a foreign port, is only passing through the territorial sea without entering internal waters.

Article 28
Civil jurisdiction in relation to foreign ships

1. The coastal State should not stop or divert a foreign ship passing through the territorial sea for the purpose of exercising civil jurisdiction in relation to a person on board the ship.

2. The coastal State may not levy execution against or arrest the ship for the purpose of any civil proceedings, save only in respect of obligations or liabilities assumed or incurred by the ship itself in the course or for the purpose of its voyage through the waters of the coastal State.

3. Paragraph 2 is without prejudice to the right of the coastal State, in accordance with its laws, to levy execution against or to arrest, for the purpose of any civil proceedings, a foreign ship lying in the territorial sea, or passing through the territorial sea after leaving internal waters.

SUBSECTION C. RULES APPLICABLE TO WARSHIPS AND OTHER GOVERNMENT SHIPS OPERATED FOR NON-COMMERCIAL PURPOSES

Article 29
Definition of warships

For the purposes of this Convention, "warship" means a ship belonging to the armed forces of a State bearing the external marks distinguishing such ships of its nationality, under the command of an officer duly commissioned by the government of the State and whose name appears in the appropriate service list or its equivalent, and manned by a crew which is under regular armed forces discipline.

Article 30
Non-compliance by warships with the laws and regulations of the coastal State

If any warship does not comply with the laws and regulations of the coastal State concerning passage through the territorial sea and disregards any request for compliance therewith which is made to it, the coastal State may require it to leave the territorial sea immediately.

Article 31
Responsibility of the flag State for damage caused by a warship or other government ship operated for non-commercial purposes

The flag State shall bear international responsibility for any loss or damage to the coastal State resulting from the non-compliance by a warship or other government ship operated for non-commercial purposes with the laws and regulations of the coastal State concerning passage through the territorial sea or with the provisions of this Convention or other rules of international law.

Article 32
Immunities of warships and other government ships operated for non-commercial purposes

With such exceptions as are contained in subsection A and in articles 30 and 31, nothing in this Convention affects the immunities of warships and other government ships operated for non-commercial purposes.

SECTION 4. CONTIGUOUS ZONE

Article 33
Contiguous zone

1. In a zone contiguous to its territorial sea, described as the contiguous zone, the coastal State may exercise the control necessary to:

(a) prevent infringement of its customs, fiscal, immigration or sanitary laws and regulations within its territory or territorial sea;

(b) punish infringement of the above laws and regulations committed within its territory or territorial sea.

2. The contiguous zone may not extend beyond 24 nautical miles from the baselines from which the breadth of the territorial sea is measured.

PART III

STRAITS USED FOR INTERNATIONAL NAVIGATION

SECTION 1. GENERAL PROVISIONS

Article 34
Legal status of waters forming straits used for international navigation

1. The régime of passage through straits used for international navigation established in this Part shall not in other respects affect the legal status of the waters forming such straits or the exercise by the States bordering the straits of their sovereignty or jurisdiction over such waters and their air space, bed and subsoil.

2. The sovereignty or jurisdiction of the States bordering the straits is exercised subject to this Part and to other rules of international law.

Article 35
Scope of this Part

Nothing in this Part affects:

(a) any areas of internal waters within a strait, except where the establishment of a straight baseline in accordance with the method set forth in article 7 has the effect of enclosing as internal waters areas which had not previously been considered as such;

(b) the legal status of the waters beyond the territorial seas of States bordering straits as exclusive economic zones or high seas; or

(c) the legal régime in straits in which passage is regulated in whole or in part by long-standing international conventions in force specifically relating to such straits.

Article 36
High seas routes or routes through exclusive economic zones through straits used for international navigation

This Part does not apply to a strait used for international navigation if there exists through the strait a route through the high seas or through an exclusive economic zone of similar convenience with respect to navigational and hydrographical characteristics; in such routes, the other relevant Parts of this Convention, including the provisions regarding the freedoms of navigation and overflight, apply.

SECTION 2. TRANSIT PASSAGE

Article 37
Scope of this section

This section applies to straits which are used for international navigation between one part of the high seas or an exclusive economic zone and another part of the high seas or an exclusive economic zone.

Article 38
Right of transit passage

1. In straits referred to in article 37, all ships and aircraft enjoy the right of transit passage, which shall not be impeded; except that, if the strait is formed by an island of a State bordering the strait and its mainland, transit passage shall not apply if there exists seaward of the island a route through the high seas or through an exclusive economic zone of similar convenience with respect to navigational and hydrographical characteristics.

2. Transit passage means the exercise in accordance with this Part of the freedom of navigation and overflight solely for the purpose of continuous and expeditious transit of the strait between one part of the high seas or an exclusive economic zone and another part of the high seas or an exclusive economic zone. However, the requirement of continuous and expeditious transit does not preclude passage through the strait for the purpose of entering, leaving or returning from a State bordering the strait, subject to the conditions of entry to that State.

3. Any activity which is not an exercise of the right of transit passage through a strait remains subject to the other applicable provisions of this Convention.

Article 39
Duties of ships and aircraft during transit passage

1. Ships and aircraft, while exercising the right of transit passage, shall:

(a) proceed without delay through or over the strait;

(b) refrain from any threat or use of force against the sovereignty, territorial integrity or political independence of States bordering the strait, or in any other manner in violation of the principles of international law embodied in the Charter of the United Nations;

(c) refrain from any activities other than those incident to their normal modes of continuous and expeditious transit unless rendered necessary by force majeure or by distress;

(d) comply with other relevant provisions of this Part.

2. Ships in transit passage shall:

(a) comply with generally accepted international regulations, procedures and practices for safety at sea, including the International Regulations for Preventing Collisions at Sea;

(b) comply with generally accepted international regulations, procedures and practices for the prevention, reduction and control of pollution from ships.

3. Aircraft in transit passage shall:

(a) observe the Rules of the Air established by the International Civil Aviation Organization as they apply to civil aircraft; state aircraft will normally comply with such safety measures and will at all times operate with due regard for the safety of navigation;

(b) at all times monitor the radio frequency assigned by the competent internationally designated air traffic control authority or the appropriate international distress radio frequency.

Article 40
Research and survey activities

During transit passage, foreign ships, including marine scientific research and hydrographic survey ships, may not carry out any research or survey activities without the prior authorization of the States bordering straits.

Article 41
Sea lanes and traffic separation schemes in straits used for international navigation

1. In conformity with this Part, States bordering straits may designate sea lanes and prescribe traffic separation schemes for navigation in straits where necessary to promote the safe passage of ships.

2. Such States may, when circumstances require, and after giving due publicity thereto, substitute other sea lanes or traffic separation schemes for any sea lanes or traffic separation schemes previously designated or prescribed by them.

3. Such sea lanes and traffic separation schemes shall conform to generally accepted international regulations.

4. Before designating or substituting sea lanes or prescribing or substituting traffic separation schemes, States bordering straits shall refer proposals to the competent international organization with a view to their adoption. The organization may adopt only such sea lanes and traffic separation schemes as may be agreed with the States bordering the straits, after which the States may designate, prescribe or substitute them.

5. In respect of a strait where sea lanes or traffic separation schemes through the waters of two or more States bordering the strait are being proposed, the States concerned shall co-operate in formulating proposals in consultation with the competent international organization.

6. States bordering straits shall clearly indicate all sea lanes and traffic separation schemes designated or prescribed by them on charts to which due publicity shall be given.

7. Ships in transit passage shall respect applicable sea lanes and traffic separation schemes established in accordance with this article.

Article 42
Laws and regulations of States bordering straits relating to transit passage

1. Subject to the provisions of this section, States bordering straits may adopt laws and regulations relating to transit passage through straits, in respect of all or any of the following:

(a) the safety of navigation and the regulation of maritime traffic, as provided in article 41;

(b) the prevention, reduction and control of pollution, by giving effect to applicable international regulations regarding the discharge of oil, oily wastes and other noxious substances in the strait;

(c) with respect to fishing vessels, the prevention of fishing, including the stowage of fishing gear;

(d) the loading or unloading of any commodity, currency or person in contravention of the customs, fiscal, immigration or sanitary laws and regulations of States bordering straits.

2. Such laws and regulations shall not discriminate in form or in fact among foreign ships or in their application have the practical effect of denying, hampering or impairing the right of transit passage as defined in this section.

3. States bordering straits shall give due publicity to all such laws and regulations.

4. Foreign ships exercising the right of transit passage shall comply with such laws and regulations.

5. The flag State of a ship or the State of registry of an aircraft entitled to sovereign immunity which acts in a manner contrary to such laws and regulations or other provisions of this Part shall bear international responsibility for any loss or damage which results to States bordering straits.

Article 43
Navigational and safety aids and other improvements and the prevention, reduction and control of pollution

User States and States bordering a strait should by agreement co-operate:

(a) in the establishment and maintenance in a strait of necessary navigational and safety aids or other improvements in aid of international navigation; and

(b) for the prevention, reduction and control of pollution from ships.

Article 44
Duties of States bordering straits

States bordering straits shall not hamper transit passage and shall give appropriate publicity to any danger to navigation or overflight within or over the strait of which they have knowledge. There shall be no suspension of transit passage.

SECTION 3. INNOCENT PASSAGE

Article 45
Innocent passage

1. The régime of innocent passage, in accordance with Part II, section 3, shall apply in straits used for international navigation:

(a) excluded from the application of the régime of transit passage under article 38, paragraph 1; or

(b) between a part of the high seas or an exclusive economic zone and the territorial sea of a foreign State.

2. There shall be no suspension of innocent passage through such straits.

PART IV

ARCHIPELAGIC STATES

Article 46
Use of terms

For the purposes of this Convention:

(a) "archipelagic State" means a State constituted wholly by one or more archipelagos and may include other islands;

(b) "archipelago" means a group of islands, including parts of islands, interconnecting waters and other natural features which are so closely interrelated that such islands, waters and other natural features form an intrinsic geographical, economic and political entity, or which historically have been regarded as such.

Article 47
Archipelagic baselines

1. An archipelagic State may draw straight archipelagic baselines joining the outermost points of the outermost islands and drying reefs of the archipelago provided that within such baselines are included the main islands and an area in which the ratio of the area of the water to the area of the land, including atolls, is between 1 to 1 and 9 to 1.

2. The length of such baselines shall not exceed 100 nautical miles, except that up to 3 per cent of the total number of baselines enclosing any archipelago may exceed that length, up to a maximum length of 125 nautical miles.

3. The drawing of such baselines shall not depart to any appreciable extent from the general configuration of the archipelago.

4. Such baselines shall not be drawn to and from low-tide elevations, unless lighthouses or similar installations which are permanently above sea level have been built on them or where a low-tide elevation is situated wholly or partly at a distance not exceeding the breadth of the territorial sea from the nearest island.

5. The system of such baselines shall not be applied by an archipelagic State in such a manner as to cut off from the high seas or the exclusive economic zone the territorial sea of another State.

6. If a part of the archipelagic waters of an archipelagic State lies between two parts of an immediately adjacent neighbouring State, existing rights and all other legitimate interests which the latter State has traditionally exercised in such waters and all rights stipulated by agreement between those States shall continue and be respected.

7. For the purpose of computing the ratio of water to land under paragraph 1, land areas may include waters lying within the fringing reefs of islands and atolls, including that part of a steep-sided oceanic plateau which is enclosed or nearly enclosed by a chain of limestone islands and drying reefs lying on the perimeter of the plateau.

8. The baselines drawn in accordance with this article shall be shown on charts of a scale or scales adequate for ascertaining their position. Alternatively, lists of geographical co-ordinates of points, specifying the geodetic datum, may be substituted.

9. The archipelagic State shall give due publicity to such charts or lists of geographical co-ordinates and shall deposit a copy of each such chart or list with the Secretary-General of the United Nations.

Article 48
Measurement of the breadth of the territorial sea, the contiguous zone, the exclusive economic zone and the continental shelf

The breadth of the territorial sea, the contiguous zone, the exclusive economic zone and the continental shelf shall be measured from archipelagic baselines drawn in accordance with article 47.

Article 49
Legal status of archipelagic waters, of the air space over archipelagic waters and of their bed and subsoil

1. The sovereignty of an archipelagic State extends to the waters enclosed by the archipelagic baselines drawn in accordance with article 47, described as archipelagic waters, regardless of their depth or distance from the coast.

2. This sovereignty extends to the air space over the archipelagic waters, as well as to their bed and subsoil, and the resources contained therein.

3. This sovereignty is exercised subject to this Part.

4. The régime of archipelagic sea lanes passage established in this Part shall not in other respects affect the status of the archipelagic waters, including the sea lanes, or the exercise by the archipelagic State of its sovereignty over such waters and their air space, bed and subsoil, and the resources contained therein.

Article 50
Delimitation of internal waters

Within its archipelagic waters, the archipelagic State may draw closing lines for the delimitation of internal waters, in accordance with articles 9, 10 and 11.

Article 51
Existing agreements, traditional fishing rights and existing submarine cables

1. Without prejudice to article 49, an archipelagic State shall respect existing agreements with other States and shall recognize traditional fishing rights and other legitimate activities of the immediately adjacent neighbouring States in certain areas falling within archipelagic waters. The terms and conditions for the exercise of such rights and activities, including the nature, the extent and the areas to which they apply, shall, at the request of any of the States concerned, be regulated by bilateral agreements between them. Such rights shall not be transferred to or shared with third States or their nationals.

2. An archipelagic State shall respect existing submarine cables laid by other States and passing through its waters without making a landfall. An archipelagic State shall permit the maintenance and replacement of such cables upon receiving due notice of their location and the intention to repair or replace them.

Article 52
Right of innocent passage

1. Subject to article 53 and without prejudice to article 50, ships of all States enjoy the right of innocent passage through archipelagic waters, in accordance with Part II, section 3.

2. The archipelagic State may, without discrimination in form or in fact among foreign ships, suspend temporarily in specified areas of its archipelagic waters the innocent passage of foreign ships if such suspension is essential for the protection of its security. Such suspension shall take effect only after having been duly published.

Article 53
Right of archipelagic sea lanes passage

1. An archipelagic State may designate sea lanes and air routes thereabove, suitable for the continuous and expeditious passage of foreign ships and aircraft through or over its archipelagic waters and the adjacent territorial sea.

2. All ships and aircraft enjoy the right of archipelagic sea lanes passage in such sea lanes and air routes.

3. Archipelagic sea lanes passage means the exercise in accordance with this Convention of the rights of navigation and overflight in the normal mode solely for the purpose of continuous, expeditious and unobstructed transit between one part of the high seas or an exclusive economic zone and another part of the high seas or an exclusive economic zone.

4. Such sea lanes and air routes shall traverse the archipelagic waters and the adjacent territorial sea and shall include all normal passage routes used as routes for international navigation or overflight through or over archipelagic waters and, within such routes, so far as ships are concerned, all normal navigational channels, provided that duplication of routes of similar convenience between the same entry and exit points shall not be necessary.

5. Such sea lanes and air routes shall be defined by a series of continuous axis lines from the entry points of passage routes to the exit points. Ships and aircraft in archipelagic sea lanes passage shall not deviate more than 25 nautical miles to either side of such axis lines during passage, provided that such ships and aircraft shall not navigate closer to the coasts than 10 per cent of the distance between the nearest points on islands bordering the sea lane.

6. An archipelagic State which designates sea lanes under this article may also prescribe traffic separation schemes for the safe passage of ships through narrow channels in such sea lanes.

7. An archipelagic State may, when circumstances require, after giving due publicity thereto, substitute other sea lanes or traffic separation schemes for any sea lanes or traffic separation schemes previously designated or prescribed by it.

8. Such sea lanes and traffic separation schemes shall conform to generally accepted international regulations.

9. In designating or substituting sea lanes or prescribing or substituting traffic separation schemes, an archipelagic State shall refer proposals to the competent international organization with a view to their adoption. The organization may adopt only such sea lanes and traffic separation schemes as may be agreed with the archipelagic State, after which the archipelagic State may designate, prescribe or substitute them.

10. The archipelagic State shall clearly indicate the axis of the sea lanes and the traffic separation schemes designated or prescribed by it on charts to which due publicity shall be given.

11. Ships in archipelagic sea lanes passage shall respect applicable sea lanes and traffic separation schemes established in accordance with this article.

12. If an archipelagic State does not designate sea lanes or air routes, the right of archipelagic sea lanes passage may be exercised through the routes normally used for international navigation.

Article 54
Duties of ships and aircraft during their passage, research and survey activities, duties of the archipelagic State and laws and regulations of the archipelagic State relating to archipelagic sea lanes passage

Articles 39, 40, 42 and 44 apply mutatis mutandis to archipelagic sea lanes passage.

PART V

EXCLUSIVE ECONOMIC ZONE

Article 55
Specific legal régime of the exclusive economic zone

The exclusive economic zone is an area beyond and adjacent to the territorial sea, subject to the specific legal régime established in this Part, under which the rights and jurisdiction of the coastal State and the rights and freedoms of other States are governed by the relevant provisions of this Convention.

Article 56
Rights, jurisdiction and duties of the coastal State in the exclusive economic zone

1. In the exclusive economic zone, the coastal State has:

(a) sovereign rights for the purpose of exploring and exploiting, conserving and managing the natural resources, whether living or non-living, of the waters superjacent to the sea-bed and of the sea-bed and its subsoil, and with regard to other activities for the economic exploitation and exploration of the zone, such as the production of energy from the water, currents and winds;

(b) jurisdiction as provided for in the relevant provisions of this Convention with regard to:

(i) the establishment and use of artificial islands, installations and structures;

(ii) marine scientific research;

(iii) the protection and preservation of the marine environment;

(c) other rights and duties provided for in this Convention.

2. In exercising its rights and performing its duties under this Convention in the exclusive economic zone, the coastal State shall have due regard to the rights and duties of other States and shall act in a manner compatible with the provisions of this Convention.

3. The rights set out in this article with respect to the sea-bed and subsoil shall be exercised in accordance with Part VI.

Article 57
Breadth of the exclusive economic zone

The exclusive economic zone shall not extend beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured.

Article 58
Rights and duties of other States in the exclusive economic zone

1. In the exclusive economic zone, all States, whether coastal or land-locked, enjoy, subject to the relevant provisions of this Convention, the freedoms referred to in article 87 of navigation and overflight and of the laying of submarine cables and pipelines, and other internationally lawful uses of the sea related to these freedoms, such as those associated with the operation of ships, aircraft and submarine cables and pipelines, and compatible with the other provisions of this Convention.

2. Articles 88 to 115 and other pertinent rules of international law apply to the exclusive economic zone in so far as they are not incompatible with this Part.

3. In exercising their rights and performing their duties under this Convention in the exclusive economic zone, States shall have due regard to the rights and duties of the coastal State and shall comply with the laws and regulations adopted by the coastal State in accordance with the provisions of this Convention and other rules of international law in so far as they are not incompatible with this Part.

Article 59
Basis for the resolution of conflicts regarding the attribution of rights and jurisdiction in the exclusive economic zone

In cases where this Convention does not attribute rights or jurisdiction to the coastal State or to other States within the exclusive economic zone, and a conflict arises between the interests of the coastal State and any other State or States, the conflict should be resolved on the basis of equity and in the light of all the relevant circumstances, taking into account the respective importance of the interests involved to the parties as well as to the international community as a whole.

Article 60
Artificial islands, installations and structures in the exclusive economic zone

1. In the exclusive economic zone, the coastal State shall have the exclusive right to construct and to authorize and regulate the construction, operation and use of:

(a) artificial islands;

(b) installations and structures for the purposes provided for in article 56 and other economic purposes;

(c) installations and structures which may interfere with the exercise of the rights of the coastal State in the zone.

2. The coastal State shall have exclusive jurisdiction over such artificial islands, installations and structures, including jurisdiction with regard to customs, fiscal, health, safety and immigration laws and regulations.

3. Due notice must be given of the construction of such artificial islands, installations or structures, and permanent means for giving warning of their presence must be maintained. Any installations or structures which are abandoned or disused shall be removed to ensure safety of navigation, taking into account any generally accepted international standards established in this regard by the competent international organization. Such removal shall also have due regard to fishing, the protection of the marine environment and the rights and duties of other States. Appropriate publicity shall be given to the depth, position and dimensions of any installations or structures not entirely removed.

4. The coastal State may, where necessary, establish reasonable safety zones around such artificial islands, installations and structures in which it may take appropriate measures to ensure the safety both of navigation and of the artificial islands, installations and structures.

5. The breadth of the safety zones shall be determined by the coastal State, taking into account applicable international standards. Such zones shall be designed to ensure that they are reasonably related to the nature and function of the artificial islands, installations or structures, and shall not exceed a distance of 500 metres around them, measured from each point of their outer edge, except as authorized by generally accepted international standards or as recommended by the competent international organization. Due notice shall be given of the extent of safety zones.

6. All ships must respect these safety zones and shall comply with generally accepted international standards regarding navigation in the vicinity of artificial islands, installations, structures and safety zones.

7. Artificial islands, installations and structures and the safety zones around them may not be established where interference may be caused to the use of recognized sea lanes essential to international navigation.

8. Artificial islands, installations and structures do not possess the status of islands. They have no territorial sea of their own, and their presence does not affect the delimitation of the territorial sea, the exclusive economic zone or the continental shelf.

Article 61
Conservation of the living resources

1. The coastal State shall determine the allowable catch of the living resources in its exclusive economic zone.

2. The coastal State, taking into account the best scientific evidence available to it, shall ensure through proper conservation and management measures that the maintenance of the living resources in the exclusive economic zone is not endangered by over-exploitation. As appropriate, the coastal State and competent international organizations, whether subregional, regional or global, shall co-operate to this end.

3. Such measures shall also be designed to maintain or restore populations of harvested species at levels which can produce the maximum sustainable yield, as qualified by relevant environmental and economic factors, including the economic needs of coastal fishing communities and the special requirements of developing States, and taking into account fishing patterns, the interdependence of stocks and any generally recommended international minimum standards, whether subregional, regional or global.

4. In taking such measures the coastal State shall take into consideration the effects on species associated with or dependent upon harvested species with a view to maintaining or restoring populations of such associated or dependent species above levels at which their reproduction may become seriously threatened.

5. Available scientific information, catch and fishing effort statistics, and other data relevant to the conservation of fish stocks shall be contributed and exchanged on a regular basis through competent international organizations, whether subregional, regional or global, where appropriate and with participation by all States concerned, including States whose nationals are allowed to fish in the exclusive economic zone.

Article 62
Utilization of the living resources

1. The coastal State shall promote the objective of optimum utilization of the living resources in the exclusive economic zone without prejudice to article 61.

2. The coastal State shall determine its capacity to harvest the living resources of the exclusive economic zone. Where the coastal State does not have the capacity to harvest the entire allowable catch, it shall, through agreements or other arrangements and pursuant to the terms, conditions, laws and regulations referred to in paragraph 4, give other States access to the surplus of the allowable catch, having particular regard to the provisions of articles 69 and 70, especially in relation to the developing States mentioned therein.

3. In giving access to other States to its exclusive economic zone under this article, the coastal State shall take into account all relevant factors, including, inter alia, the significance of the living resources of the area to the economy of the coastal State concerned and its other national interests, the provisions of articles 69 and 70, the requirements

of developing States in the subregion or region in harvesting part of the surplus and the need to minimize economic dislocation in States whose nationals have habitually fished in the zone or which have made substantial efforts in research and identification of stocks.

4. Nationals of other States fishing in the exclusive economic zone shall comply with the conservation measures and with the other terms and conditions established in the laws and regulations of the coastal State. These laws and regulations shall be consistent with this Convention and may relate, inter alia, to the following:

(a) licensing of fishermen, fishing vessels and equipment, including payment of fees and other forms of remuneration, which, in the case of developing coastal States, may consist of adequate compensation in the field of financing, equipment and technology relating to the fishing industry;

(b) determining the species which may be caught, and fixing quotas of catch, whether in relation to particular stocks or groups of stocks or catch per vessel over a period of time or to the catch by nationals of any State during a specified period;

(c) regulating seasons and areas of fishing, the types, sizes and amount of gear, and the types, sizes and number of fishing vessels that may be used;

(d) fixing the age and size of fish and other species that may be caught;

(e) specifying information required of fishing vessels, including catch and effort statistics and vessel position reports;

(f) requiring, under the authorization and control of the coastal State, the conduct of specified fisheries research programmes and regulating the conduct of such research, including the sampling of catches, disposition of samples and reporting of associated scientific data;

(g) the placing of observers or trainees on board such vessels by the coastal State;

(h) the landing of all or any part of the catch by such vessels in the ports of the coastal State;

(i) terms and conditions relating to joint ventures or other co-operative arrangements;

(j) requirements for the training of personnel and the transfer of fisheries technology, including enhancement of the coastal State's capability of undertaking fisheries research;

(k) enforcement procedures.

5. Coastal States shall give due notice of conservation and management laws and regulations.

Article 63
Stocks occurring within the exclusive economic zones of two or more coastal States or both within the exclusive economic zone and in an area beyond and adjacent to it

1. Where the same stock or stocks of associated species occur within the exclusive economic zones of two or more coastal States, these States shall seek, either directly or through appropriate subregional or regional organizations, to agree upon the measures necessary to co-ordinate and ensure the conservation and development of such stocks without prejudice to the other provisions of this Part.

2. Where the same stock or stocks of associated species occur both within the exclusive economic zone and in an area beyond and adjacent to the zone, the coastal State and the States fishing for such stocks in the adjacent area shall seek, either directly or through appropriate subregional or regional organizations, to agree upon the measures necessary for the conservation of these stocks in the adjacent area.

Article 64
Highly migratory species

1. The coastal State and other States whose nationals fish in the region for the highly migratory species listed in Annex I shall co-operate directly or through appropriate international organizations with a view to ensuring conservation and promoting the objective of optimum utilization of such species throughout the region, both within and beyond the exclusive economic zone. In regions for which no appropriate international organization exists, the coastal State and other States whose nationals harvest these species in the region shall co-operate to establish such an organization and participate in its work.

2. The provisions of paragraph 1 apply in addition to the other provisions of this Part.

Article 65
Marine mammals

Nothing in this Part restricts the right of a coastal State or the competence of an international organization, as appropriate, to prohibit, limit or regulate the exploitation of marine mammals more strictly than provided for in this Part. States shall co-operate with a view to the conservation of marine mammals and in the case of cetaceans shall in particular work through the appropriate international organizations for their conservation, management and study.

Article 66
Anadromous stocks

1. States in whose rivers anadromous stocks originate shall have the primary interest in and responsibility for such stocks.

2. The State of origin of anadromous stocks shall ensure their conservation by the establishment of appropriate regulatory measures for fishing in all waters landward of the outer limits of its exclusive economic zone and for fishing provided for in paragraph 3(b). The State of origin may, after consultations with the other States referred to in paragraphs 3 and 4 fishing these stocks, establish total allowable catches for stocks originating in its rivers.

3. (a) Fisheries for anadromous stocks shall be conducted only in waters landward of the outer limits of exclusive economic zones, except in cases where this provision would result in economic dislocation for a State other than the State of origin. With respect to such fishing beyond the outer limits of the exclusive economic zone, States concerned shall maintain consultations with a view to achieving agreement on terms and conditions of such fishing giving due regard to the conservation requirements and the needs of the State of origin in respect of these stocks.

(b) The State of origin shall co-operate in minimizing economic dislocation in such other States fishing these stocks, taking into account the normal catch and the mode of operations of such States, and all the areas in which such fishing has occurred.

(c) States referred to in subparagraph (b), participating by agreement with the State of origin in measures to renew anadromous stocks, particularly by expenditures for that purpose, shall be given special consideration by the State of origin in the harvesting of stocks originating in its rivers.

(d) Enforcement of regulations regarding anadromous stocks beyond the exclusive economic zone shall be by agreement between the State of origin and the other States concerned.

4. In cases where anadromous stocks migrate into or through the waters landward of the outer limits of the exclusive economic zone of a State other than the State of origin, such State shall co-operate with the State of origin with regard to the conservation and management of such stocks.

5. The State of origin of anadromous stocks and other States fishing those stocks shall make arrangements for the implementation of the provisions of this article, where appropriate, through regional organizations.

Article 67
Catadromous species

1. A coastal State in whose waters catadromous species spend the greater part of their life cycle shall have responsibility for the management of these species and shall ensure the ingress and egress of migrating fish.

2. Harvesting of catadromous species shall be conducted only in waters landward of the outer limits of exclusive economic zones. When conducted in exclusive economic zones, harvesting shall be subject to this article and the other provisions of this Convention concerning fishing in these zones.

3. In cases where catadromous fish migrate through the exclusive economic zone of another State, whether as juvenile or maturing fish, the management, including harvesting, of such fish shall be regulated by agreement between the State mentioned in paragraph 1 and the other State concerned. Such agreement shall ensure the rational management of the species and take into account the responsibilities of the State mentioned in paragraph 1 for the maintenance of these species.

Article 68
Sedentary species

This Part does not apply to sedentary species as defined in article 77, paragraph 4.

Article 69
Right of land-locked States

1. Land-locked States shall have the right to participate, on an equitable basis, in the exploitation of an appropriate part of the surplus of the living resources of the exclusive economic zones of coastal States of the same subregion or region, taking into account the relevant economic and geographical circumstances of all the States concerned and in conformity with the provisions of this article and of articles 61 and 62.

2. The terms and modalities of such participation shall be established by the States concerned through bilateral, subregional or regional agreements taking into account, inter alia:

(a) the need to avoid effects detrimental to fishing communities or fishing industries of the coastal State;

(b) the extent to which the land-locked State, in accordance with the provisions of this article, is participating or is entitled to participate under existing bilateral, subregional or regional agreements in the exploitation of living resources of the exclusive economic zones of other coastal States;

(c) the extent to which other land-locked States and geographically disadvantaged States are participating in the exploitation of the living resources of the exclusive economic zone of the coastal State and the consequent need to avoid a particular burden for any single coastal State or a part of it;

(d) the nutritional needs of the populations of the respective States.

3. When the harvesting capacity of a coastal State approaches a point which would enable it to harvest the entire allowable catch of the living resources in its exclusive economic zone, the coastal State and other States concerned shall co-operate in the establishment of equitable arrangements on a bilateral, subregional or regional basis to allow for participation of developing land-locked States of the same subregion or region in the exploitation of the living resources of the exclusive economic zones of coastal States of the subregion or region, as may be appropriate in the circumstances and on terms satisfactory to all parties. In the implementation of this provision the factors mentioned in paragraph 2 shall also be taken into account.

4. Developed land-locked States shall, under the provisions of this article, be entitled to participate in the exploitation of living resources only in the exclusive economic zones of developed coastal States of the same subregion or region having regard to the extent to which the coastal State, in giving access to other States to the living resources

of its exclusive economic zone, has taken into account the need to minimize detrimental effects on fishing communities and economic dislocation in States whose nationals have habitually fished in the zone.

5. The above provisions are without prejudice to arrangements agreed upon in subregions or regions where the coastal States may grant to land-locked States of the same subregion or region equal or preferential rights for the exploitation of the living resources in the exclusive economic zones.

Article 70
Right of geographically disadvantaged States

1. Geographically disadvantaged States shall have the right to participate, on an equitable basis, in the exploitation of an appropriate part of the surplus of the living resources of the exclusive economic zones of coastal States of the same subregion or region, taking into account the relevant economic and geographical circumstances of all the States concerned and in conformity with the provisions of this article and of articles 61 and 62.

2. For the purposes of this Part, "geographically disadvantaged States" means coastal States, including States bordering enclosed or semi-enclosed seas, whose geographical situation makes them dependent upon the exploitation of the living resources of the exclusive economic zones of other States in the subregion or region for adequate supplies of fish for the nutritional purposes of their populations or parts thereof, and coastal States which can claim no exclusive economic zones of their own.

3. The terms and modalities of such participation shall be established by the States concerned through bilateral, subregional or regional agreements taking into account, inter alia:

(a) the need to avoid effects detrimental to fishing communities or fishing industries of the coastal State;

(b) the extent to which the geographically disadvantaged State, in accordance with the provisions of this article, is participating or is entitled to participate under existing bilateral, subregional or regional agreements in the exploitation of living resources of the exclusive economic zones of other coastal States;

(c) the extent to which other geographically disadvantaged States and land-locked States are participating in the exploitation of the living resources of the exclusive economic zone of the coastal State and the consequent need to avoid a particular burden for any single coastal State or a part of it;

(d) the nutritional needs of the populations of the respective States.

4. When the harvesting capacity of a coastal State approaches a point which would enable it to harvest the entire allowable catch of the living resources in its exclusive economic zone, the coastal State and other States concerned shall co-operate in the establishment of equitable arrangements on a bilateral, subregional or regional basis to allow for participation of developing geographically disadvantaged States of the same subregion or region in the exploitation of the living resources of the exclusive economic zones of coastal States of the subregion or region, as may be appropriate in the circumstances and on terms satisfactory to all parties. In the implementation of this provision the factors mentioned in paragraph 3 shall also be taken into account.

5. Developed geographically disadvantaged States shall, under the provisions of this article, be entitled to participate in the exploitation of living resources only in the exclusive economic zones of developed coastal States of the same subregion or region having regard to the extent to which the coastal State, in giving access to other States to the living resources of its exclusive economic zone, has taken into account the need to minimize detrimental effects on fishing communities and economic dislocation in States whose nationals have habitually fished in the zone.

6. The above provisions are without prejudice to arrangements agreed upon in subregions or regions where the coastal States may grant to geographically disadvantaged States of the same subregion or region equal or preferential rights for the exploitation of the living resources in the exclusive economic zones.

Article 71
Non-applicability of articles 69 and 70

The provisions of articles 69 and 70 do not apply in the case of a coastal State whose economy is overwhelmingly dependent on the exploitation of the living resources of its exclusive economic zone.

Article 72
Restrictions on transfer of rights

1. Rights provided under articles 69 and 70 to exploit living resources shall not be directly or indirectly transferred to third States or their nationals by lease or licence, by establishing joint ventures or in any other manner which has the effect of such transfer unless otherwise agreed by the States concerned.

2. The foregoing provision does not preclude the States concerned from obtaining technical or financial assistance from third States or international organizations in order to facilitate the exercise of the rights pursuant to articles 69 and 70, provided that it does not have the effect referred to in paragraph 1.

Article 73
Enforcement of laws and regulations of the coastal State

1. The coastal State may, in the exercise of its sovereign rights to explore, exploit, conserve and manage the living resources in the exclusive economic zone, take such measures, including boarding, inspection, arrest and judicial proceedings, as may be necessary to ensure compliance with the laws and regulations adopted by it in conformity with this Convention.

2. Arrested vessels and their crews shall be promptly released upon the posting of reasonable bond or other security.

3. Coastal State penalties for violations of fisheries laws and regulations in the exclusive economic zone may not include imprisonment, in the absence of agreements to the contrary by the States concerned, or any other form of corporal punishment.

4. In cases of arrest or detention of foreign vessels the coastal State shall promptly notify the flag State, through appropriate channels, of the action taken and of any penalties subsequently imposed.

Article 74
Delimitation of the exclusive economic zone between States with opposite or adjacent coasts

1. The delimitation of the exclusive economic zone between States with opposite or adjacent coasts shall be effected by agreement on the basis of international law, as referred to in Article 38 of the Statute of the International Court of Justice, in order to achieve an equitable solution.

2. If no agreement can be reached within a reasonable period of time, the States concerned shall resort to the procedures provided for in Part XV.

3. Pending agreement as provided for in paragraph 1, the States concerned, in a spirit of understanding and co-operation, shall make every effort to enter into provisional arrangements of a practical nature and, during this transitional period, not to jeopardize or hamper the reaching of the final agreement. Such arrangements shall be without prejudice to the final delimitation.

4. Where there is an agreement in force between the States concerned, questions relating to the delimitation of the exclusive economic zone shall be determined in accordance with the provisions of that agreement.

Article 75
Charts and lists of geographical co-ordinates

1. Subject to this Part, the outer limit lines of the exclusive economic zone and the lines of delimitation drawn in accordance with article 74 shall be shown on charts of a scale or scales adequate for ascertaining their position. Where appropriate, lists of geographical co-ordinates of points, specifying the geodetic datum, may be substituted for such outer limit lines or lines of delimitation.

2. The coastal State shall give due publicity to such charts or lists of geographical co-ordinates and shall deposit a copy of each such chart or list with the Secretary-General of the United Nations.

PART VI

CONTINENTAL SHELF

Article 76
Definition of the continental shelf

1. The continental shelf of a coastal State comprises the sea-bed and subsoil of the submarine areas that extend beyond its territorial sea throughout the natural prolongation of its land territory to the outer edge of the continental margin, or to a distance of 200 nautical miles from the baselines from which the breadth of the territorial sea is measured where the outer edge of the continental margin does not extend up to that distance.

2. The continental shelf of a coastal State shall not extend beyond the limits provided for in paragraphs 4 to 6.

3. The continental margin comprises the submerged prolongation of the land mass of the coastal State, and consists of the sea-bed and subsoil of the shelf, the slope and the rise. It does not include the deep ocean floor with its oceanic ridges or the subsoil thereof.

4. (a) For the purposes of this Convention, the coastal State shall establish the outer edge of the continental margin wherever the margin extends beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured, by either:

(i) a line delineated in accordance with paragraph 7 by reference to the outermost fixed points at each of which the thickness of sedimentary rocks is at least 1 per cent of the shortest distance from such point to the foot of the continental slope; or

(ii) a line delineated in accordance with paragraph 7 by reference to fixed points not more than 60 nautical miles from the foot of the continental slope.

(b) In the absence of evidence to the contrary, the foot of the continental slope shall be determined as the point of maximum change in the gradient at its base.

5. The fixed points comprising the line of the outer limits of the continental shelf on the sea-bed, drawn in accordance with paragraph 4 (a) (i) and (ii), either shall not exceed 350 nautical miles from the baselines from which the breadth of the territorial sea is measured or shall not exceed 100 nautical miles from the 2,500 metre isobath, which is a line connecting the depth of 2,500 metres.

6. Notwithstanding the provisions of paragraph 5, on submarine ridges, the outer limit of the continental shelf shall not exceed 350 nautical miles from the baselines from which the breadth of the territorial sea is measured. This paragraph does not apply to submarine elevations that are natural components of the continental margin, such as its plateaux, rises, caps, banks and spurs.

7. The coastal State shall delineate the outer limits of its continental shelf, where that shelf extends beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured, by straight lines not exceeding 60 nautical miles in length, connecting fixed points, defined by co-ordinates of latitude and longitude.

8. Information on the limits of the continental shelf beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured shall be submitted by the coastal State to the Commission on the Limits of the Continental Shelf set up under Annex II on the basis of equitable geographical representation. The Commission shall make recommendations to coastal States on matters related to the establishment of the outer limits of their continental shelf. The limits of the shelf established by a coastal State on the basis of these recommendations shall be final and binding.

9. The coastal State shall deposit with the Secretary-General of the United Nations charts and relevant information, including geodetic data, permanently describing the outer limits of its continental shelf. The Secretary-General shall give due publicity thereto.

10. The provisions of this article are without prejudice to the question of delimitation of the continental shelf between States with opposite or adjacent coasts.

Article 77
Rights of the coastal State over the continental shelf

1. The coastal State exercises over the continental shelf sovereign rights for the purpose of exploring it and exploiting its natural resources.

2. The rights referred to in paragraph 1 are exclusive in the sense that if the coastal State does not explore the continental shelf or exploit its natural resources, no one may undertake these activities without the express consent of the coastal State.

3. The rights of the coastal State over the continental shelf do not depend on occupation, effective or notional, or on any express proclamation.

4. The natural resources referred to in this Part consist of the mineral and other non-living resources of the sea-bed and subsoil together with living organisms belonging to sedentary species, that is to say, organisms which, at the harvestable stage, either are immobile on or under the sea-bed or are unable to move except in constant physical contact with the sea-bed or the subsoil.

Article 78
Legal status of the superjacent waters and air space and the rights and freedoms of other States

1. The rights of the coastal State over the continental shelf do not affect the legal status of the superjacent waters or of the air space above those waters.

2. The exercise of the rights of the coastal State over the continental shelf must not infringe or result in any unjustifiable interference with navigation and other rights and freedoms of other States as provided for in this Convention.

Article 79
Submarine cables and pipelines on the continental shelf

1. All States are entitled to lay submarine cables and pipelines on the continental shelf, in accordance with the provisions of this article.

2. Subject to its right to take reasonable measures for the exploration of the continental shelf, the exploitation of its natural resources and the prevention, reduction and control of pollution from pipelines, the coastal State may not impede the laying or maintenance of such cables or pipelines.

3. The delineation of the course for the laying of such pipelines on the continental shelf is subject to the consent of the coastal State.

4. Nothing in this Part affects the right of the coastal State to establish conditions for cables or pipelines entering its territory or territorial sea, or its jurisdiction over cables and pipelines constructed or used in connection with the exploration of its continental shelf or exploitation of its resources or the operations of artificial islands, installations and structures under its jurisdiction.

5. When laying submarine cables or pipelines, States shall have due regard to cables or pipelines already in position. In particular, possibilities of repairing existing cables or pipelines shall not be prejudiced.

Article 80
Artificial islands, installations and structures on the continental shelf

Article 60 applies mutatis mutandis to artificial islands, installations and structures on the continental shelf.

Article 81
Drilling on the continental shelf

The coastal State shall have the exclusive right to authorize and regulate drilling on the continental shelf for all purposes.

Article 82
Payments and contributions with respect to the exploitation of the continental shelf beyond 200 nautical miles

1. The coastal State shall make payments or contributions in kind in respect of the exploitation of the non-living resources of the continental shelf beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured.

2. The payments and contributions shall be made annually with respect to all production at a site after the first five years of production at that site. For the sixth year, the rate of payment or contribution shall be 1 per cent of the value or volume of production at the site. The rate shall increase by 1 per cent for each subsequent year until the twelfth year and shall remain at 7 per cent thereafter. Production does not include resources used in connection with exploitation.

3. A developing State which is a net importer of a mineral resource produced from its continental shelf is exempt from making such payments or contributions in respect of that mineral resource.

4. The payments or contributions shall be made through the Authority, which shall distribute them to States Parties to this Convention, on the basis of equitable sharing criteria, taking into account the interests and needs of developing States, particularly the least developed and the land-locked among them.

Article 83
Delimitation of the continental shelf between States with opposite or adjacent coasts

1. The delimitation of the continental shelf between States with opposite or adjacent coasts shall be effected by agreement on the basis of international law, as referred to in Article 38 of the Statute of the International Court of Justice, in order to achieve an equitable solution.

2. If no agreement can be reached within a reasonable period of time, the States concerned shall resort to the procedures provided for in Part XV.

3. Pending agreement as provided for in paragraph 1, the States concerned, in a spirit of understanding and co-operation, shall make every effort to enter into provisional arrangements of a practical nature and, during this

transitional period, not to jeopardize or hamper the reaching of the final agreement. Such arrangements shall be without prejudice to the final delimitation.

4. Where there is an agreement in force between the States concerned, questions relating to the delimitation of the continental shelf shall be determined in accordance with the provisions of that agreement.

Article 84
Charts and lists of geographical co-ordinates

1. Subject to this Part, the outer limit lines of the continental shelf and the lines of delimitation drawn in accordance with article 83 shall be shown on charts of a scale or scales adequate for ascertaining their position. Where appropriate, lists of geographical co-ordinates of points, specifying the geodetic datum, may be substituted for such outer limit lines or lines of delimitation.

2. The coastal State shall give due publicity to such charts or lists of geographical co-ordInates and shall deposit a copy of each such chart or list with the Secretary-General of the United Nations and, in the case of those showing the outer limit lines of the continental shelf, with the Secretary-General of the Authority.

Article 85
Tunnelling

This Part does not prejudice the right of the coastal State to exploit the subsoil by means of tunnelling, irrespective of the depth of water above the subsoil.

PART VII

HIGH SEAS

SECTION 1. GENERAL PROVISIONS

Article 86
Application of the provisions of this Part

The provisions of this Part apply to all parts of the sea that are not included in the exclusive economic zone, in the territorial sea or in the internal waters of a State, or in the archipelagic waters of an archipelagic State. This article does not entail any abridgement of the freedoms enjoyed by all States in the exclusive economic zone in accordance with article 58.

Article 87
Freedom of the high seas

1. The high seas are open to all States, whether coastal or land-locked. Freedom of the high seas is exercised under the conditions laid down by this Convention and by other rules of international law. It comprises, inter alia, both for coastal and land-locked States:

(a) freedom of navigation;

(b) freedom of overflight;

(c) freedom to lay submarine cables and pipelines, subject to Part VI;

(d) freedom to construct artificial islands and other installations permitted under international law, subject to Part VI;

(e) freedom of fishing, subject to the conditions laid down in section 2;

(f) freedom of scientific research, subject to Parts VI and XIII.

2. These freedoms shall be exercised by all States with due regard for the interests of other States in their exercise of the freedom of the high seas and also with due regard for the rights under this Convention with respect to activities in the Area.

Article 88
Reservation of the high seas for peaceful purposes

The high seas shall be reserved for peaceful purposes.

Article 89
Invalidity of claims of sovereignty over the high seas

No State may validly purport to subject any part of the high seas to its sovereignty.

Article 90
Right of navigation

Every State, whether coastal or land-locked, has the right to sail ships flying its flag on the high seas.

Article 91
Nationality of ships

1. Every State shall fix the conditions for the grant of its nationality to ships, for the registration of ships in its territory, and for the right to fly its flag. Ships have the nationality of the State whose flag they are entitled to fly. There must exist a genuine link between the State and the ship.

2. Every State shall issue to ships to which it has granted the right to fly its flag documents to that effect.

Article 92
Status of ships

1. Ships shall sail under the flag of one State only and, save in exceptional cases expressly provided for in international treaties or in this Convention, shall be subject to its exclusive jurisdiction on the high seas. A ship may not change its flag during a voyage or while in a port of call, save in the case of a real transfer of ownership or change of registry.

2. A ship which sails under the flags of two or more States, using them according to convenience, may not claim any of the nationalities in question with respect to any other State, and may be assimilated to a ship without nationality.

Article 93
Ships flying the flag of the United Nations, its specialized agencies and the International Atomic Energy Agency

The preceding articles do not prejudice the question of ships employed on the official service of the United Nations, its specialized agencies or the International Atomic Energy Agency, flying the flag of the organization.

Article 94
Duties of the flag State

1. Every State shall effectively exercise its jurisdiction and control in administrative, technical and social matters over ships flying its flag.

2. In particular every State shall:

(a) maintain a register of ships containing the names and particulars of ships flying its flag, except those which are excluded from generally accepted international regulations on account of their small size; and

(b) assume jurisdiction under its internal law over each ship flying its flag and its master, officers and crew in respect of administrative, technical and social matters concerning the ship.

3. Every State shall take such measures for ships flying its flag as are necessary to ensure safety at sea with regard, inter alia, to:

(a) the construction, equipment and seaworthiness of ships;

(b) the manning of ships, labour conditions and the training of crews, taking into account the applicable international instruments;

(c) the use of signals, the maintenance of communications and the prevention of collisions.

4. Such measures shall include those necessary to ensure:

(a) that each ship, before registration and thereafter at appropriate intervals, is surveyed by a qualified surveyor of ships, and has on board such charts, nautical publications and navigational equipment and instruments as are appropriate for the safe navigation of the ship;

(b) that each ship is in the charge of a master and officers who possess appropriate qualifications, in particular in seamanship, navigation, communications and marine engineering, and that the crew is appropriate in qualification and numbers for the type, size, machinery and equipment of the ship;

(c) that the master, officers and, to the extent appropriate, the crew are fully conversant with and required to observe the applicable international regulations concerning the safety of life at sea, the prevention of collisions, the prevention, reduction and control of marine pollution, and the maintenance of communications by radio.

5. In taking the measures called for in paragraphs 3 and 4 each State is required to conform to generally accepted international regulations, procedures and practices and to take any steps which may be necessary to secure their observance.

6. A State which has clear grounds to believe that proper jurisdiction and control with respect to a ship have not been exercised may report the facts to the flag State. Upon receiving such a report, the flag State shall investigate the matter and, if appropriate, take any action necessary to remedy the situation.

7. Each State shall cause an inquiry to be held by or before a suitably qualified person or persons into every marine casualty or incident of navigation on the high seas involving a ship flying its flag and causing loss of life or serious injury to nationals of another State or serious damage to ships or installations of another State or to the

marine environment. The flag State and the other State shall co-operate in the conduct of any inquiry held by that other State into any such marine casualty or incident of navigation.

Article 95
Immunity of warships on the high seas

Warships on the high seas have complete immunity from the jurisdiction of any State other than the flag State.

Article 96
Immunity of ships used only on government non-commercial service

Ships owned or operated by a State and used only on government non-commercial service shall, on the high seas, have complete immunity from the jurisdiction of any State other than the flag State.

Article 97
Penal jurisdiction in matters of collision or any other incident of navigation

1. In the event of a collision or any other incident of navigation concerning a ship on the high seas, involving the penal or disciplinary responsibility of the master or of any other person in the service of the ship, no penal or disciplinary proceedings may be instituted against such person except before the judicial or administrative authorities either of the flag State or of the State of which such person is a national.

2. In disciplinary matters, the State which has issued a master's certificate or a certificate of competence or licence shall alone be competent, after due legal process, to pronounce the withdrawal of such certificates, even if the holder is not a national of the State which issued them.

3. No arrest or detention of the ship, even as a measure of investigation, shall be ordered by any authorities other than those of the flag State.

Article 98
Duty to render assistance

1. Every State shall require the master of a ship flying its flag, in so far as he can do so without serious danger to the ship, the crew or the passengers;

(a) to render assistance to any person found at sea in danger of being lost;

(b) to proceed with all possible speed to the rescue of persons in distress, if informed of their need of assistance, in so far as such action may reasonably be expected of him;

(c) after a collision, to render assistance to the other ship, its crew and its passengers and, where possible, to inform the other ship of the name of his own ship, its port of registry and the nearest port at which it will call.

2. Every coastal State shall promote the establishment, operation and maintenance of an adequate and effective search and rescue service regarding safety on and over the sea and, where circumstances so require, by way of mutual regional arrangements co-operate with neighbouring States for this purpose.

Article 99
Prohibition of the transport of slaves

Every State shall take effective measures to prevent and punish the transport of slaves in ships authorized to fly its flag and to prevent the unlawful use of its flag for that purpose. Any slave taking refuge on board any ship, whatever its flag, shall ipso facto be free.

Article 100
Duty to co-operate in the repression of piracy

All States shall co-operate to the fullest possible extent in the repression of piracy on the high seas or in any other place outside the jurisdiction of any State.

Article 101
Definition of piracy

Piracy consists of any of the following acts:

(a) any illegal acts of violence or detention, or any act of depredation, committed for private ends by the crew or the passengers of a private ship or a private aircraft, and directed:

  (i) on the high seas, against another ship or aircraft, or against persons or property on board such ship or aircraft;

  (ii) against a ship, aircraft, persons or property in a place outside the jurisdiction of any State;

(b) any act of voluntary participation in the operation of a ship or of an aircraft with knowledge of facts making it a pirate ship or aircraft;

(c) any act of inciting or of intentionally facilitating an act described in subparagraph (a) or (b).

Article 102
Piracy by a warship, government ship or government aircraft whose crew has mutinied

The acts of piracy, as defined in article 101, committed by a warship, government ship or government aircraft whose crew has mutinied and taken control of the ship or aircraft are assimilated to acts committed by a private ship or aircraft.

Article 103
Definition of a pirate ship or aircraft

A ship or aircraft is considered a pirate ship or aircraft if it is intended by the persons in dominant control to be used for the purpose of committing one of the acts referred to in article 101. The same applies if the ship or aircraft has been used to commit any such act, so long as it remains under the control of the persons guilty of that act.

Article 104
Retention or loss of the nationality of a pirate ship or aircraft

A ship or aircraft may retain its nationality although it has become a pirate ship or aircraft. The retention or loss of nationality is determined by the law of the State from which such nationality was derived.

Article 105
Seizure of a pirate ship or aircraft

On the high seas, or in any other place outside the jurisdiction of any State, every State may seize a pirate ship or aircraft, or a ship or aircraft taken by piracy and under the control of pirates, and arrest the persons and seize the property on board. The courts of the State which carried out the seizure may decide upon the penalties to be imposed, and may also determine the action to be taken with regard to the ships, aircraft or property, subject to the rights of third parties acting in good faith.

Article 106
Liability for seizure without adequate grounds

Where the seizure of a ship or aircraft on suspicion of piracy has been effected without adequate grounds, the State making the seizure shall be liable to the State the nationality of which is possessed by the ship or aircraft for any loss or damage caused by the seizure.

Article 107
Ships and aircraft which are entitled to seize on account of piracy

A seizure on account of piracy may be carried out only by warships or military aircraft, or other ships or aircraft clearly marked and identifiable as being on government service and authorized to that effect.

Article 108
Illicit traffic in narcotic drugs or psychotropic substances

1. All States shall co-operate in the suppression of illicit traffic in narcotic drugs and psychotropic substances engaged in by ships on the high seas contrary to international conventions.

2. Any State which has reasonable grounds for believing that a ship flying its flag is engaged in illicit traffic in narcotic drugs or psychotropic substances may request the co-operation of other States to suppress such traffic.

Article 109
Unauthorized broadcasting from the high seas

1. All States shall co-operate in the suppression of unauthorized broadcasting from the high seas.

2. For the purposes of this Convention, "unauthorized broadcasting" means the transmission of sound radio or television broadcasts from a ship or installation on the high seas intended for reception by the general public contrary to international regulations, but excluding the transmission of distress calls.

3. Any person engaged in unauthorized broadcasting may be prosecuted before the court of:

(a) the flag State of the ship;

(b) the State of registry of the installation;

(c) the State of which the person is a national;

(d) any State where the transmissions can be received; or

(e) any State where authorized radio communication is suffering interference.

4. On the high seas, a State having jurisdiction in accordance with paragraph 3 may, in conformity with article 110, arrest any person or ship engaged in unauthorized broadcasting and seize the broadcasting apparatus.

Article 110
Right of visit

1. Except where acts of interference derive from powers conferred by treaty, a warship which encounters on the high seas a foreign ship, other than a ship entitled to complete immunity in accordance with articles 95 and 96, is not justified in boarding it unless there is reasonable ground for suspecting that:

(a) the ship is engaged in piracy;

(b) the ship is engaged in the slave trade;

(c) the ship is engaged in unauthorized broadcasting and the flag State of the warship has jurisdiction under article 109;

(d) the ship is without nationality; or

(e) though flying a foreign flag or refusing to show its flag, the ship is, in reality, of the same nationality as the warship.

2. In the cases provided for in paragraph 1, the warship may proceed to verify the ship's right to fly its flag. To this end, it may send a boat under the command of an officer to the suspected ship. If suspicion remains after the documents have been checked, it may proceed to a further examination on board the ship, which must be carried out with all possible consideration.

3. If the suspicions prove to be unfounded, and provided that the ship boarded has not committed any act justifying them, it shall be compensated for any loss or damage that may have been sustained.

4. These provisions apply mutatis mutandis to military aircraft.

5. These provisions also apply to any other duly authorized ships or aircraft clearly marked and identifiable as being on government service.

Article 111
Right of hot pursuit

1. The hot pursuit of a foreign ship may be undertaken when the competent authorities of the coastal State have good reason to believe that the ship has violated the laws and regulations of that State. Such pursuit must be commenced when the foreign ship or one of its boats is within the internal waters, the archipelagic waters, the territorial sea or the contiguous zone of the pursuing State, and may only be continued outside the territorial sea or the contiguous zone if the pursuit has not been interrupted. It is not necessary that, at the time when the foreign ship within the territorial sea or the contiguous zone receives the order to stop, the ship giving the order should likewise be within the territorial sea or the contiguous zone. If the foreign ship is within a contiguous zone, as defined in article 33, the pursuit may only be undertaken if there has been a violation of the rights for the protection of which the zone was established.

2. The right of hot pursuit shall apply mutatis mutandis to violations in the exclusive economic zone or on the continental shelf, including safety zones around continental shelf installations, of the laws and regulations of the coastal State applicable in accordance with this Convention to the exclusive economic zone or the continental shelf, including such safety zones.

3. The right of hot pursuit ceases as soon as the ship pursued enters the territorial sea of its own State or of a third State.

4. Hot pursuit is not deemed to have begun unless the pursuing ship has satisfied itself by such practicable means as may be available that the ship pursued or one of its boats or other craft working as a team and using the ship pursued as a mother ship is within the limits of the territorial sea, or, as the case may be, within the contiguous zone

or the exclusive economic zone or above the continental shelf. The pursuit may only be commenced after a visual or auditory signal to stop has been given at a distance which enables it to be seen or heard by the foreign ship.

5. The right of hot pursuit may be exercised only by warships or military aircraft, or other ships or aircraft clearly marked and identifiable as being on government service and authorized to that effect.

6. Where hot pursuit is effected by an aircraft:

(a) the provisions of paragraphs 1 to 4 shall apply mutatis mutandis;

(b) the aircraft giving the order to stop must itself actively pursue the ship until a ship or another aircraft of the coastal State, summoned by the aircraft, arrives to take over the pursuit, unless the aircraft is itself able to arrest the ship. It does not suffice to justify an arrest outside the territorial sea that the ship was merely sighted by the aircraft as an offender or suspected offender, if it was not both ordered to stop and pursued by the aircraft itself or other aircraft or ships which continue the pursuit without interruption.

7. The release of a ship arrested within the jurisdiction of a State and escorted to a port of that State for the purposes of an inquiry before the competent authorities may not be claimed solely on the ground that the ship, in the course of its voyage, was escorted across a portion of the exclusive economic zone or the high seas, if the circumstances rendered this necessary.

8. Where a ship has been stopped or arrested outside the territorial sea in circumstances which do not justify the exercise of the right of hot pursuit, it shall be compensated for any loss or damage that may have been thereby sustained.

Article 112
Right to lay submarine cables and pipelines

1. All States are entitled to lay submarine cables and pipelines on the bed of the high seas beyond the continental shelf.

2. Article 79, paragraph 5, applies to such cables and pipelines.

Article 113
Breaking or injury of a submarine cable or pipeline

Every State shall adopt the laws and regulations necessary to provide that the breaking or injury by a ship flying its flag or by a person subject to its jurisdiction of a submarine cable beneath the high seas done wilfully or through culpable negligence, in such a manner as to be liable to interrupt or obstruct telegraphic or telephonic communications, and similarly the breaking or injury of a submarine pipeline or high-voltage power cable, shall be a punishable offence. This provision shall apply also to conduct calculated or likely to result in such breaking or injury. However, it shall not apply to any break or injury caused by persons who acted merely with the legitimate object of saving their lives or their ships, after having taken all necessary precautions to avoid such break or injury.

Article 114
Breaking or injury by owners of a submarine cable or pipeline of another submarine cable or pipeline

Every State shall adopt the laws and regulations necessary to provide that, if persons subject to its jurisdiction who are the owners of a submarine cable or pipeline beneath the high seas, in laying or repairing that cable or pipeline, cause a break in or injury to another cable or pipeline, they shall bear the cost of the repairs.

Article 115
Indemnity for loss incurred in avoiding injury to a submarine cable or pipeline

Every State shall adopt the laws and regulations necessary to ensure that the owners of ships who can prove that they have sacrificed an anchor, a net or any other fishing gear, in order to avoid injuring a submarine cable or pipeline, shall be indemnified by the owner of the cable or pipeline, provided that the owner of the ship has taken all reasonable precautionary measures beforehand.

SECTION 2. CONSERVATION AND MANAGEMENT OF THE LIVING RESOURCES OF THE HIGH SEAS

Article 116
Right to fish on the high seas

All States have the right for their nationals to engage in fishing on the high seas subject to:

(a) their treaty obligations;

(b) the rights and duties as well as the interests of coastal States provided for, inter alia, in article 63, paragraph 2, and articles 64 to 67; and

(c) the provisions of this section.

Article 117
Duty of States to adopt with respect to their nationals measures for the conservation of the living resources of the high seas

All States have the duty to take, or to co-operate with other States in taking, such measures for their respective nationals as may be necessary for the conservation of the living resources of the high seas.

Article 118
Co-operation of States in the conservation and management of living resources

States shall co-operate with each other in the conservation and management of living resources in the areas of the high seas. States whose nationals exploit identical living resources, or different living resources in the same area, shall enter into negotiations with a view to taking the measures necessary for the conservation of the living resources concerned. They shall, as appropriate, co-operate to establish subregional or regional fisheries organizations to this end.

Article 119
Conservation of the living resources of the high seas

1. In determining the allowable catch and establishing other conservation measures for the living resources in the high seas, States shall:

(a) take measures which are designed, on the best scientific evidence available to the States concerned, to maintain or restore populations of harvested species at levels which can produce the maximum sustainable yield, as qualified by relevant environmental and economic factors, including the special requirements of developing States, and taking into account fishing patterns, the interdependence of stocks and any generally recommended international minimum standards, whether subregional, regional or global;

(b) take into consideration the effects on species associated with or dependent upon harvested species with a view to maintaining or restoring populations of such associated or dependent species above levels at which their reproduction may become seriously threatened.

2. Available scientific information, catch and fishing effort statistics, and other data relevant to the conservation of fish stocks shall be contributed and exchanged on a regular basis through competent international organizations, whether subregional, regional or global, where appropriate and with participation by all States concerned.

3. States concerned shall ensure that conservation measures and their implementation do not discriminate in form or in fact against the fishermen of any State.

Article 120
Marine mammals

Article 65 also applies to the conservation and management of marine mammals in the high seas.

PART VIII

REGIME OF ISLANDS

Article 121
Régime of islands

1. An island is a naturally formed area of land, surrounded by water, which is above water at high tide.

2. Except as provided for in paragraph 3, the territorial sea, the contiguous zone, the exclusive economic zone and the continental shelf of an island are determined in accordance with the provisions of this Convention applicable to other land territory.

3. Rocks which cannot sustain human habitation or economic life of their own shall have no exclusive economic zone or continental shelf.

PART IX

ENCLOSED OR SEMI-ENCLOSED SEAS

Article 122
Definition

For the purposes of this Convention, "enclosed or semi-enclosed sea" means a gulf, basin or sea surrounded by two or more States and connected to another sea or the ocean by a narrow outlet or consisting entirely or primarily of the territorial seas and exclusive economic zones of two or more coastal States.

Article 123
Co-operation of States bordering enclosed or semi-enclosed seas

States bordering an enclosed or semi-enclosed sea should co-operate with each other in the exercise of their rights and in the performance of their duties under this Convention. To this end they shall endeavour, directly or through an appropriate regional organization:

(a) to co-ordinate the management, conservation, exploration and exploitation of the living resources of the sea;

(b) to co-ordinate the implementation of their rights and duties with respect to the protection and preservation of the marine environment;

(c) to co-ordinate their scientific research policies and undertake where appropriate joint programmes of scientific research in the area;

(d) to invite, as appropriate, other interested States or international organizations to co-operate with them in furtherance of the provisions of this article.

PART X

RIGHT OF ACCESS OF LAND-LOCKED STATES TO AND FROM THE SEA AND FREEDOM OF TRANSIT

Article 124
Use of terms

1. For the purposes of this Convention:

(a) "land-locked State" means a State which has no sea-coast;

(b) "transit State" means a State, with or without a sea-coast, situated between a land-locked State and the sea, through whose territory traffic in transit passes;

(c) "traffic in transit" means transit of persons, baggage, goods and means of transport across the territory of one or more transit States, when the passage across such territory, with or without trans-shipment, warehousing, breaking bulk or change in the mode of transport, is only a portion of a complete journey which begins or terminates within the territory of the land-locked State;

(d) "means of transport" means:

(i) railway rolling stock, sea, lake and river craft and road vehicles;

(ii) where local conditions so require, porters and pack animals.

2. Land-locked States and transit States may, by agreement between them, include as means of transport pipelines and gas lines and means of transport other than those included in paragraph 1.

Article 125
Right of access to and from the sea and freedom of transit

1. Land-locked States shall have the right of access to and from the sea for the purpose of exercising the rights provided for in this Convention including those relating to the freedom of the high seas and the common heritage of mankind. To this end, land-locked States shall enjoy freedom of transit through the territory of transit States by all means of transport.

2. The terms and modalities for exercising freedom of transit shall be agreed between the land-locked States and transit States concerned through bilateral, subregional or regional agreements.

3. Transit States, in the exercise of their full sovereignty over their territory, shall have the right to take all measures necessary to ensure that the rights and facilities provided for in this Part for land-locked States shall in no way infringe their legitimate interests.

Article 126
Exclusion of application of the most-favoured-nation clause

The provisions of this Convention, as well as special agreements relating to the exercise of the right of access to and from the sea, establishing rights and facilities on account of the special geographical position of land-locked States, are excluded from the application of the most-favoured-nation clause.

Article 127
Customs duties, taxes and other charges

1. Traffic in transit shall not be subject to any customs duties, taxes or other charges except charges levied for specific services rendered in connection with such traffic.

2. Means of transport in transit and other facilities provided for and used by land-locked States shall not be subject to taxes or charges higher than those levied for the use of means of transport of the transit State.

Article 128
Free zones and other customs facilities

For the convenience of traffic in transit, free zones or other customs facilities may be provided at the ports of entry and exit in the transit States, by agreement between those States and the land-locked States.

Article 129
Co-operation in the construction and improvement of means of transport

Where there are no means of transport in transit States to give effect to the freedom of transit or where the existing means, including the port installations and equipment, are inadequate in any respect, the transit States and land-locked States concerned may co-operate in constructing or improving them.

Article 130
Measures to avoid or eliminate delays or other difficulties of a technical nature in traffic in transit

1. Transit States shall take all appropriate measures to avoid delays or other difficulties of a technical nature in traffic in transit.

2. Should such delays or difficulties occur, the competent authorities of the transit States and land-locked States concerned shall co-operate towards their expeditious elimination.

Article 131
Equal treatment in maritime ports

Ships flying the flag of land-locked States shall enjoy treatment equal to that accorded to other foreign ships in maritime ports.

Article 132
Grant of greater transit facilities

This Convention does not entail in any way the withdrawal of transit facilities which are greater than those provided for in this Convention and which are agreed between States Parties to this Convention or granted by a State Party. This Convention also does not preclude such grant of greater facilities in the future.

PART XI

THE AREA

SECTION 1. GENERAL PROVISIONS

Article 133
Use of terms

For the purposes of this Part:

(a) "resources" means all solid, liquid or gaseous mineral resources in situ in the Area at or beneath the sea-bed, including polymetallic nodules;

(b) resources, when recovered from the Area, are referred to as "minerals".

Article 134
Scope of this Part

1. This Part applies to the Area.

2. Activities in the Area shall be governed by the provisions of this Part.

3. The requirements concerning deposit of, and publicity to be given to, the charts or lists of geographical co-ordinates showing the limits referred to in article 1, paragraph 1(1), are set forth in Part VI.

4. Nothing in this article affects the establishment of the outer limits of the continental shelf in accordance with Part VI or the validity of agreements relating to delimitation between States with opposite or adjacent coasts.

Article 135
Legal status of the superjacent waters and air space

Neither this Part nor any rights granted or exercised pursuant thereto shall affect the legal status of the waters superjacent to the Area or that of the air space above those waters.

SECTION 2. PRINCIPLES GOVERNING THE AREA

Article 136
Common heritage of mankind

The Area and its resources are the common heritage of mankind.

Article 137
Legal status of the Area and its resources

1. No State shall claim or exercise sovereignty or sovereign rights over any part of the Area or its resources, nor shall any State or natural or juridical person appropriate any part thereof. No such claim or exercise of sovereignty or sovereign rights nor such appropriation shall be recognized.

2. All rights in the resources of the Area are vested in mankind as a whole, on whose behalf the Authority shall act. These resources are not subject to alienation. The minerals recovered from the Area, however, may only be alienated in accordance with this Part and the rules, regulations and procedures of the Authority.

3. No State or natural or juridical person shall claim, acquire or exercise rights with respect to the minerals recovered from the Area except in accordance with this Part. Otherwise, no such claim, acquisition or exercise of such rights shall be recognized.

Article 138
General conduct of States in relation to the Area

The general conduct of States in relation to the Area shall be in accordance with the provisions of this Part, the principles embodied in the Charter of the United Nations and other rules of international law in the interests of maintaining peace and security and promoting international co-operation and mutual understanding.

Article 139
Responsibility to ensure compliance and liability for damage

1. States Parties shall have the responsibility to ensure that activities in the Area, whether carried out by States Parties, or state enterprises or natural or juridical persons which possess the nationality of States Parties or are effectively controlled by them or their nationals, shall be carried out in conformity with this Part. The same responsibility applies to international organizations for activities in the Area carried out by such organizations.

2. Without prejudice to the rules of international law and Annex III, article 22, damage caused by the failure of a State Party or international organization to carry out its responsibilities under this Part shall entail liability; States Parties or international organizations acting together shall bear joint and several liability. A State Party shall not however be liable for damage caused by any failure to comply with this Part by a person whom it has sponsored under article 153, paragraph 2(b), if the State Party has taken all necessary and appropriate measures to secure effective compliance under article 153, paragraph 4, and Annex III, article 4, paragraph 4.

3. States Parties that are members of international organizations shall take appropriate measures to ensure the implementation of this article with respect to such organizations.

Article 140
Benefit of mankind

1. Activities in the Area shall, as specifically provided for in this Part, be carried out for the benefit of mankind as a whole, irrespective of the geographical location of States, whether coastal or land-locked, and taking into particular consideration the interests and needs of developing States and of peoples who have not attained full independence or other self-governing status recognized by the United Nations in accordance with General Assembly resolution 1514 (XV) and other relevant General Assembly resolutions.

2. The Authority shall provide for the equitable sharing of financial and other economic benefits derived from activities in the Area through any appropriate mechanism, on a non-discriminatory basis, in accordance with article 160, paragraph 2(f) (i).

Article 141
Use of the Area exclusively for peaceful purposes

The Area shall be open to use exclusively for peaceful purposes by all States, whether coastal or land-locked, without discrimination and without prejudice to the other provisions of this Part.

Article 142
Rights and legitimate interests of coastal States

1. Activities in the Area, with respect to resource deposits in the Area which lie across limits of national jurisdiction, shall be conducted with due regard to the rights and legitimate interests of any coastal State across whose jurisdiction such deposits lie.

2. Consultations, including a system of prior notification, shall be maintained with the State concerned, with a view to avoiding infringement of such rights and interests. In cases where activities in the Area may result in the exploitation of resources lying within national jurisdiction, the prior consent of the coastal State concerned shall be required.

3. Neither this Part nor any rights granted or exercised pursuant thereto shall affect the rights of coastal States to take such measures consistent with the relevant provisions of Part XII as may be necessary to prevent, mitigate or eliminate grave and imminent danger to their coastline, or related interests from pollution or threat thereof or from other hazardous occurrences resulting from or caused by any activities in the Area.

Article 143
Marine scientific research

1. Marine scientific research in the Area shall be carried out exclusively for peaceful purposes and for the benefit of mankind as a whole, in accordance with Part XIII.

2. The Authority may carry out marine scientific research concerning the Area and its resources, and may enter into contracts for that purpose. The Authority shall promote and encourage the conduct of marine scientific research in the Area, and shall co-ordinate and disseminate the results of such research and analysis when available.

3. States Parties may carry out marine scientific research in the Area. States Parties shall promote international co-operation in marine scientific research in the Area by:

(a) participating in international programmes and encouraging co-operation in marine scientific research by personnel of different countries and of the Authority;

(b) ensuring that programmes are developed through the Authority or other international organizations as appropriate for the benefit of developing States and technologically less developed States with a view to:

  (i) strengthening their research capabilities;

  (ii) training their personnel and the personnel of the Authority in the techniques and applications of research;

  (iii) fostering the employment of their qualified personnel in research in the Area;

(c) effectively disseminating the results of research and analysis when available, through the Authority or other international channels when appropriate.

Article 144
Transfer of technology

1. The Authority shall take measures in accordance with this Convention:

(a) to acquire technology and scientific knowledge relating to activities in the Area; and

(b) to promote and encourage the transfer to developing States of such technology and scientific knowledge so that all States Parties benefit therefrom.

2. To this end the Authority and States Parties shall co-operate in promoting the transfer of technology and scientific knowledge relating to activities in the Area so that the Enterprise and all States Parties may benefit therefrom. In particular they shall initiate and promote:

(a) programmes for the transfer of technology to the Enterprise and to developing States with regard to activities in the Area, including, inter alia, facilitating the access of the Enterprise and of developing States to the relevant technology, under fair and reasonable terms and conditions;

(b) measures directed towards the advancement of the technology of the Enterprise and the domestic technology of developing States, particularly by providing opportunities to personnel from the Enterprise and from developing States for training in marine science and technology and for their full participation in activities in the Area.

Article 145
Protection of the marine environment

Necessary measures shall be taken in accordance with this Convention with respect to activities in the Area to ensure effective protection for the brine environment from harmful effects which may arise from such activities. To this end the Authority shall adopt appropriate rules, regulations and procedures for inter alia:

(a) the prevention, reduction and control of pollution and other hazards to the marine environment, including the coastline, and of interference with the ecological balance of the marine environment, particular attention being paid to the need for protection from harmful effects of such activities as drilling, dredging, excavation, disposal of waste, construction and operation or maintenance of installations, pipelines and other devices related to such activities;

(b) the protection and conservation of the natural resources of the Area and the prevention of damage to the flora and fauna of the marine environment.

Article 146
Protection of human life

With respect to activities in the Area, necessary measures shall be taken to ensure effective protection of human life. To this end the Authority shall adopt appropriate rules, regulations and procedures to supplement existing international law as embodied in relevant treaties.

Article 147
Accommodation of activities in the Area and in the marine environment

1. Activities in the Area shall be carried out with reasonable regard for other activities in the marine environment.

2. Installations used for carrying out activities in the Area shall be subject to the following conditions:

(a) such installations shall be erected, emplaced and removed solely in accordance with this Part and subject to the rules, regulations and procedures of the Authority. Due notice must be given of the erection, emplacement and removal of such installations, and permanent means for giving warning of their presence must be maintained;

(b) such installations may not be established where interference may be caused to the use of recognized sea lanes essential to international navigation or in areas of intense fishing activity;

(c) safety zones shall be established around such installations with appropriate markings to ensure the safety of both navigation and the installations. The configuration and location of such safety zones shall not be such as to form a belt impeding the lawful access of shipping to particular maritime zones or navigation along international sea lanes;

(d) such installations shall be used exclusively for peaceful purposes;

(e) such installations do not possess the status of islands. They have no territorial sea of their own, and their presence does not affect the delimitation of the territorial sea, the exclusive economic zone or the continental shelf.

3. Other activities in the marine environment shall be conducted with reasonable regard for activities in the Area.

Article 148
Participation of developing States in activities in the Area

The effective participation of developing States in activities in the Area shall be promoted as specifically provided for in this Part, having due regard to their special interests and needs, and in particular to the special need of the land-locked and geographically disadvantaged among them to overcome obstacles arising from their disadvantaged location, including remoteness from the Area and difficulty of access to and from it.

Article 149
Archaeological and historical objects

All objects of an archaeological and historical nature found in the Area shall be preserved or disposed of for the benefit of mankind as a whole, particular regard being paid to the preferential rights of the State or country of origin, or the State of cultural origin, or the State of historical and archaeological origin.

SECTION 3. DEVELOPMENT OF RESOURCES OF THE AREA

Article 150
Policies relating to activities in the Area

Activities in the Area shall, as specifically provided for in this Part, be carried out in such a manner as to foster healthy development of the world economy and balanced growth of international trade, and to promote international co-operation for the over-all development of all countries, especially developing States, and with a view to ensuring:

(a) the development of the resources of the Area;

(b) orderly, safe and rational management of the resources of the Area, including the efficient conduct of activities in the Area and, in accordance with sound principles of conservation, the avoidance of unnecessary waste;

(c) the expansion of opportunities for participation in such activities consistent in particular with articles 144 and 148;

(d) participation in revenues by the Authority and the transfer of technology to the Enterprise and developing States as provided for in this Convention;

(e) increased availability of the minerals derived from the Area as needed in conjunction with minerals derived from other sources, to ensure supplies to consumers of such minerals;

(f) the promotion of just and stable prices remunerative to producers and fair to consumers for minerals derived both from the Area and from other sources, and the promotion of long-term equilibrium between supply and demand;

(g) the enhancement of opportunities for all States Parties, irrespective of their social and economic systems or geographical location, to participate in the development of the resources of the Area and the prevention of monopolization of activities in the Area;

(h) the protection of developing countries from adverse effects on their economies or on their export earnings resulting from a reduction in the price of an affected mineral, or in the volume of exports of that mineral, to the extent that such reduction is caused by activities in the Area, as provided in article 151;

(i) the development of the common heritage for the benefit of mankind as a whole; and

(j) conditions of access to markets for the imports of minerals produced from the resources of the Area and for imports of commodities produced from such minerals shall not be more favourable than the most favourable applied to imports from other sources.

Article 151
Production policies

1. (a) Without prejudice to the objectives set forth in article 150 and for the purpose of implementing subparagraph (h) of that article, the Authority, acting through existing forums or such new arrangements or agreements as may be appropriate, in which all interested parties, including both producers and consumers, participate, shall take measures necessary to promote the growth, efficiency and stability of markets for those commodities produced from the minerals derived from the Area, at prices remunerative to producers and fair to consumers. All States Parties shall co-operate to this end.

(b) The Authority shall have the right to participate in any commodity conference dealing with those commodities and in which all interested parties including both producers and consumers participate. The Authority shall have the right to become a party to any arrangement or agreement resulting from such conferences. Participation of the Authority in any organs established under those arrangements or agreements shall be in respect of production in the Area and in accordance with the relevant rules of those organs.

(c) The Authority shall carry out its obligations under the arrangements or agreements referred to in this paragraph in a manner which assures a uniform and non-discriminatory implementation in respect of all production in the Area of the minerals concerned. In doing so, the Authority shall act in a manner consistent with the terms of existing contracts and approved plans of work of the Enterprise.

2. (a) During the interim period specified in paragraph 3, commercial production shall not be undertaken pursuant to an approved plan of work until the operator has applied for and has been issued a production authorization by the Authority. Such production authorizations may not be applied for or issued more than five years prior to the planned commencement of commercial production under the plan of work unless, having regard to the nature and timing of project development, the rules, regulations and procedures of the Authority prescribe another period.

(b) In the application for the production authorization, the operator shall specify the annual quantity of nickel expected to be recovered under the approved plan of work. The application shall include a schedule of expenditures to be made by the operator after he has received the authorization which are reasonably calculated to allow him to begin commercial production on the date planned.

(c) For the purposes of subparagraphs (a) and (b), the Authority shall establish appropriate performance requirements in accordance with Annex III, article 17.

(d) The Authority shall issue a production authorization for the level of production applied for unless the sum of that level and the levels already authorized exceeds the nickel production ceiling, as calculated pursuant to paragraph 4 in the year of issuance of the authorization, during any year of planned production falling within the interim period.

(e) When issued, the production authorization and approved application shall become a part of the approved plan of work.

(f) If the operator's application for a production authorization is denied pursuant to subparagraph (d), the operator may apply again to the Authority at any time.

3. The interim period shall begin five years prior to 1 January of the year in which the earliest commercial production is planned to commence under an approved plan of work. If the earliest commercial production is delayed beyond the year originally planned, the beginning of the interim period and the production ceiling originally calculated shall be adjusted accordingly. The interim period shall last 25 years or until the end of the Review Conference referred to in article 155 or until the day when such new arrangements or agreements as are referred to in paragraph 1 enter into force, whichever is earliest. The Authority shall resume the power provided in this article for the remainder of the interim period if the said arrangements or agreements should lapse or become ineffective for any reason whatsoever.

4. (a) The production ceiling for any year of the interim period shall be the sum of:

(i) the difference between the trend line values for nickel consumption, as calculated pursuant to subparagraph (b), for the year immediately prior to the year of the earliest commercial production and the year immediately prior to the commencement of the interim period; and

(ii) sixty per cent of the difference between the trend line values for nickel consumption, as calculated pursuant to subparagraph (b), for the year for which the production authorization is being applied for and the year immediately prior to the year of the earliest commercial production.

(b) For the purposes of subparagraph (a):

(i) trend line values used for computing the nickel production ceiling shall be those annual nickel consumption values on a trend line computed during the year in which a production authorization is issued. The trend line shall be derived from a linear regression of the logarithms of actual nickel consumption for the most recent 15-year period for which such data are available, time being the independent variable. This trend line shall be referred to as the original trend line;

(ii) if the annual rate of increase of the original trend line is less than 3 per cent, then the trend line used to determine the quantities referred to in subparagraph (a) shall instead be one passing through the original trend line at the value for the first year of the relevant 15-year period, and increasing at 3 per cent annually; provided however that the production ceiling established for any year of the interim period may not in any case exceed the difference between the original trend line value for that year and the original trend line value for the year immediately prior to the commencement of the interim period.

5. The Authority shall reserve to the Enterprise for its initial production a quantity of 38,000 metric tonnes of nickel from the available production ceiling calculated pursuant to paragraph 4.

6. (a) An operator may in any year produce less than or up to 8 per cent more than the level of annual production of minerals from polymetallic nodules specified in his production authorization, provided that the over-all amount of production shall not exceed that specified in the authorization. Any excess over 8 per cent and up to 20 per cent in any year, or any excess in the first and subsequent years following two consecutive years in which excesses occur, shall be negotiated with the Authority, which may require the operator to obtain a supplementary production authorization to cover additional production.

(b) Applications for such supplementary production authorizations shall be considered by the Authority only after all pending applications by operators who have not yet received production authorizations have been acted upon and due account has been taken of other likely applicants. The Authority shall be guided by the principle of not exceeding the total production allowed under the production ceiling in any year of the interim period. It shall not authorize the production under any plan of work of a quantity in excess of 46,500 metric tonnes of nickel per year.

7. The levels of production of other metals such as copper, cobalt and manganese extracted from the polymetallic nodules that are recovered pursuant to a production authorization should not be higher than those which would have been produced had the operator produced the maximum level of nickel from those nodules pursuant to this article. The Authority shall establish rules, regulations and procedures pursuant to Annex III, article 17, to implement this paragraph.

8. Rights and obligations relating to unfair economic practices under relevant multilateral trade agreements shall apply to the exploration for and exploitation of minerals from the Area. In the settlement of disputes arising under this provision, States Parties which are Parties to such multilateral trade agreements shall have recourse to the dispute settlement procedures of such agreements.

9. The Authority shall have the power to limit the level of production of minerals from the Area, other than minerals from polymetallic nodules, under such conditions and applying such methods as may be appropriate by adopting regulations in accordance with article 161, paragraph 8.

10. Upon the recommendation of the Council on the basis of advice from the Economic Planning Commission, the Assembly shall establish a system of compensation or take other measures of economic adjustment assistance including co-operation with specialized agencies and other international organizations to assist developing countries which suffer serious adverse effects on their export earnings or economies resulting from a reduction in the price of an affected mineral or in the volume of exports of that mineral, to the extent that such reduction is caused by activities in the Area. The Authority on request shall initiate studies on the problems of those States which are likely to be most seriously affected with a view to minimizing their difficulties and assisting them in their economic adjustment.

Article 152
Exercise of powers and functions by the Authority

1. The Authority shall avoid discrimination in the exercise of its powers and functions, including the granting of opportunities for activities in the Area.

2. Nevertheless, special consideration for developing States, including particular consideration for the land-locked and geographically disadvantaged among them, specifically provided for in this Part shall be permitted.

Article 153
System of exploration and exploitation

1. Activities in the Area shall be organized, carried out and controlled by the Authority on behalf of mankind as a whole in accordance with this article as well as other relevant provisions of this Part and the relevant Annexes, and the rules, regulations and procedures of the Authority.

2. Activities in the Area shall be carried out as prescribed in paragraph 3:

(a) by the Enterprise, and

(b) in association with the Authority by States Parties, or state enterprises or natural or juridical persons which possess the nationality of States Parties or are effectively controlled by them or their nationals, when sponsored by such States, or any group of the foregoing which meets the requirements provided in this Part and in Annex III.

3. Activities in the Area shall be carried out in accordance with a formal written plan of work drawn up in accordance with Annex III and approved by the Council after review by the Legal and Technical Commission. In the case of activities in the Area carried out as authorized by the Authority by the entities specified in paragraph 2(b), the plan of work shall, in accordance with Annex III, article 3, be in the form of a contract. Such contracts may provide for joint arrangements in accordance with Annex III, article 11.

4. The Authority shall exercise such control over activities in the Area as is necessary for the purpose of securing compliance with the relevant provisions of this Part and the Annexes relating thereto, and the rules, regulations and procedures of the Authority, and the plans of work approved in accordance with paragraph 3. States Parties shall assist the Authority by taking all measures necessary to ensure such compliance in accordance with article 139.

5. The Authority shall have the right to take at any time any measures provided for under this Part to ensure compliance with its provisions and the exercise of the functions of control and regulation assigned to it thereunder or under any contract. The Authority shall have the right to inspect all installations in the Area used in connection with activities in the Area.

6. A contract under paragraph 3 shall provide for security of tenure. Accordingly, the contract shall not be revised, suspended or terminated except in accordance with Annex III, articles 18 and 19.

Article 154
Periodic review

Every five years from the entry into force of this Convention, the Assembly shall undertake a general and systematic review of the manner in which the international régime of the Area established in this Convention has operated in practice. In the light of this review the Assembly may take, or recommend that other organs take, measures in accordance with the provisions and procedures of this Part and the Annexes relating thereto which will lead to the improvement of the operation of the régime.

Article 155
The Review Conference

1. Fifteen years from 1 January of the year in which the earliest commercial production commences under an approved plan of work, the Assembly shall convene a conference for the review of those provisions of this Part and the relevant Annexes which govern the system of exploration and exploitation of the resources of the Area. The Review Conference shall consider in detail, in the light of the experience acquired during that period:

(a) whether the provisions of this Part which govern the system of exploration and exploitation of the resources of the Area have achieved their aims in all respects, including whether they have benefited mankind as a whole;

(b) whether, during the 15-year period, reserved areas have been exploited in an effective and balanced manner in comparison with non-reserved areas;

(c) whether the development and use of the Area and its resources have been undertaken in such a manner as to foster healthy development of the world economy and balanced growth of international trade;

(d) whether monopolization of activities in the Area has been prevented;

(e) whether the policies set forth in articles 150 and 151 have been fulfilled; and

(f) whether the system has resulted in the equitable sharing of benefits derived from activities in the Area, taking into particular consideration the interests and needs of the developing States.

2. The Review Conference shall ensure the maintenance of the principle of the common heritage of mankind, the international régime designed to ensure equitable exploitation of the resources of the Area for the benefit of all countries, especially the developing States, and an Authority to organize, conduct and control activities in the Area. It shall also ensure the maintenance of the principles laid down in this Part with regard to the exclusion of claims or exercise of sovereignty over any part of the Area, the rights of States and their general conduct in relation to the Area, and their participation in activities in the Area in conformity with this Convention, the prevention of monopolization of activities in the Area, the use of the Area exclusively for peaceful purposes, economic aspects of activities in the Area, marine scientific research, transfer of technology, protection of the marine environment, protection of human life, rights of coastal States, the legal status of the waters superjacent to the Area and that of the air space above those waters and accommodation between activities in the Area and other activities in the marine environment.

3. The decision-making procedure applicable at the Review Conference shall be the same as that applicable at the Third United Nations Conference on the Law of the Sea. The Conference shall make every effort to reach agreement on any amendments by way of consensus and there should be no voting on such matters until all efforts at achieving consensus have been exhausted.

4. If, five years after its commencement, the Review Conference has not reached agreement on the system of exploration and exploitation of the resources of the Area, it may decide during the ensuing 12 months, by a three-fourths majority of the States Parties, to adopt and submit to the States Parties for ratification or accession

such amendments changing or modifying the system as it determines necessary and appropriate. Such amendments shall enter into force for all States Parties 12 months after the deposit of instruments of ratification or accession by three fourths of the States Parties.

5. Amendments adopted by the Review Conference pursuant to this article shall not affect rights acquired under existing contracts.

SECTION 4. THE AUTHORITY

SUBSECTION A. GENERAL PROVISIONS

Article 156
Establishment of the Authority

1. There is hereby established the International Sea-Bed Authority, which shall function in accordance with this Part.

2. All States Parties are ipso facto members of the Authority.

3. Observers at the Third United Nations Conference on the Law of the Sea who have signed the Final Act and who are not referred to in article 305, paragraph 1(c), (d), (e) or (f), shall have the right to participate in the Authority as observers, in accordance with its rules, regulations and procedures.

4. The seat of the Authority shall be in Jamaica.

5. The Authority may establish such regional centres or offices as it deems necessary for the exercise of its functions.

Article 157
Nature and fundamental principles of the Authority

1. The Authority is the organization through which States Parties shall, in accordance with this Part, organize and control activities in the Area, particularly with a view to administering the resources of the Area.

2. The powers and functions of the Authority shall be those expressly conferred upon it by this Convention. The Authority shall have such incidental powers, consistent with this Convention, as are implicit in and necessary for the exercise of those powers and functions with respect to activities in the Area.

3. The Authority is based on the principle of the sovereign equality of all its members.

4. All members of the Authority shall fulfil in good faith the obligations assumed by them in accordance with this Part in order to ensure to all of them the rights and benefits resulting from membership.

Article 158
Organs of the Authority

1. There are hereby established, as the principal organs of the Authority, an Assembly, a Council and a Secretariat.

2. There is hereby established the Enterprise, the organ through which the Authority shall carry out the functions referred to in article 170, paragraph 1.

3. Such subsidiary organs as may be found necessary may be established in accordance with this Part.

4. Each principal organ of the Authority and the Enterprise shall be responsible for exercising those powers and functions which are conferred upon it. In exercising such powers and functions each organ shall avoid taking any action which may derogate from or impede the exercise of specific powers and functions conferred upon another organ.

SUBSECTION B. THE ASSEMBLY

Article 159
Composition, procedure and voting

1. The Assembly shall consist of all the members of the Authority. Each member shall have one representative in the Assembly, who may be accompanied by alternates and advisers.

2. The Assembly shall meet in regular annual sessions and in such special sessions as may be decided by the Assembly, or convened by the Secretary-General at the request of the Council or of a majority of the members of the Authority.

3. Sessions shall take place at the seat of the Authority unless otherwise decided by the Assembly.

4. The Assembly shall adopt its rules of procedure. At the beginning of each regular session, it shall elect its President and such other officers as may be required. They shall hold office until a new President and other officers are elected at the next regular session.

5. A majority of the members of the Assembly shall constitute a quorum.

6. Each member of the Assembly shall have one vote.

7. Decisions on questions of procedure, including decisions to convene special sessions of the Assembly, shall be taken by a majority of the members present and voting.

8. Decisions on questions of substance shall be taken by a two-thirds majority of the members present and voting, provided that such majority includes a majority of the members participating in the session. When the issue arises as to whether a question is one of substance or not, that question shall be treated as one of substance unless otherwise decided by the Assembly by the majority required for decisions on questions of substance.

9. When a question of substance comes up for voting for the first time, the President may, and shall, if requested by at least one fifth of the members of the Assembly, defer the issue of taking a vote on that question for a period not exceeding five calendar days. This rule may be applied only once to any question, and shall not be applied so as to defer the question beyond the end of the session.

10. Upon a written request addressed to the President and sponsored by at least one fourth of the members of the Authority for an advisory opinion on the conformity with this Convention of a proposal before the Assembly on any matter, the Assembly shall request the Sea-Bed Disputes Chamber of the International Tribunal for the Law of the Sea to give an advisory opinion thereon and shall defer voting on that proposal pending receipt of the advisory opinion by the Chamber. If the advisory opinion is not received before the final week of the session in which it is requested, the Assembly shall decide when it will meet to vote upon the deferred proposal.

Article 160
Powers and functions

1. The Assembly, as the sole organ of the Authority consisting of all the members, shall be considered the supreme organ of the Authority to which the other principal organs shall be accountable as specifically provided for in this Convention. The Assembly shall have the power to establish general policies in conformity with the relevant provisions of this Convention on any question or matter within the competence of the Authority.

2. In addition, the powers and functions of the Assembly shall be:

(a) to elect the members of the Council in accordance with article 161;

(b) to elect the Secretary-General from among the candidates proposed by the Council;

(c) to elect, upon the recommendation of the Council, the members of the Governing Board of the Enterprise and the Director-General of the Enterprise;

(d) to establish such subsidiary organs as it finds necessary for the exercise of its functions in accordance with this Part. In the composition of these subsidiary organs due account shall be taken of the principle of equitable geographical distribution and of special interests and the need for members qualified and competent in the relevant technical questions dealt with by such organs;

(e) to assess the contributions of members to the administrative budget of the Authority in accordance with an agreed scale of assessment based upon the scale used for the regular budget of the United Nations until the Authority shall have sufficient income from other sources to meet its administrative expenses;

(f) (i) to consider and approve, upon the recommendation of the Council, the rules, regulations and procedures on the equitable sharing of financial and other economic benefits derived from activities in the Area and the payments and contributions made pursuant to article 82, taking into particular consideration the interests and needs of developing States and peoples who have not attained full independence or other self-governing status. If the Assembly does not approve the recommendations of the Council, the Assembly shall return them to the Council for reconsideration in the light of the views expressed by the Assembly;

(ii) to consider and approve the rules, regulations and procedures of the Authority, and any amendments thereto, provisionally adopted by the Council pursuant to article 162, paragraph 2 (o) (ii). These rules, regulations and procedures shall relate to prospecting, exploration and exploitation in the Area, the financial management and internal administration of the Authority, and, upon the recommendation of the Governing Board of the Enterprise, to the transfer of funds from the Enterprise to the Authority;

(g) to decide upon the equitable sharing of financial and other economic benefits derived from activities in the Area, consistent with this Convention and the rules, regulations and procedures of the Authority;

(h) to consider and approve the proposed annual budget of the Authority submitted by the Council;

(i) to examine periodic reports from the Council and from the Enterprise and special reports requested from the Council or any other organ of the Authority;

(j) to initiate studies and make recommendations for the purpose of promoting international co-operation concerning activities in the Area and encouraging the progressive development of international law relating thereto and its codification;

(k) to consider problems of a general nature in connection with activities in the Area arising in particular for developing States, as well as those problems for States in connection with activities in the Area that are due to their geographical location, particularly for land-locked and geographically disadvantaged States;

(l) to establish, upon the recommendation of the Council, on the basis of advice from the Economic Planning Commission, a system of compensation or other measures of economic adjustment assistance as provided in article 151, paragraph 10;

(m) to suspend the exercise of rights and privileges of membership pursuant to article 185;

(n) to discuss any question or matter within the competence of the Authority and to decide as to which organ of the Authority shall deal with any such question or matter not specifically entrusted to a particular organ, consistent with the distribution of powers and functions among the organs of the Authority.

SUBSECTION C. THE COUNCIL

Article 161
Composition, procedure and voting

1. The Council shall consist of 36 members of the Authority elected by the Assembly in the following order:

(a) four members from among those States Parties which, during the last five years for which statistics are available, have either consumed more than 2 per cent of total world consumption or have had net imports of more than 2 per cent of total world imports of the commodities produced from the categories of minerals to be derived from the Area, and in any case one State from the Eastern European (Socialist) region, as well as the largest consumer;

(b) four members from among the eight States Parties which have the largest investments in preparation for and in the conduct of activities in the Area, either directly or through their nationals, including at least one State from the Eastern European (Socialist) region;

(c) four members from among States Parties which on the basis of production in areas under their jurisdiction are major net exporters of the categories of minerals to be derived from the Area, including at least two developing States whose exports of such minerals have a substantial bearing upon their economies;

(d) six members from among developing States Parties, representing special interests. The special interests to be represented shall include those of States with large populations, States which are land-locked or geographically disadvantaged, States which are major importers of the categories of minerals to be derived from the Area, States which are potential producers of such minerals, and least developed States;

(e) eighteen members elected according to the principle of ensuring an equitable geographical distribution of seats in the Council as a whole, provided that each geographical region shall have at least one member elected under this subparagraph. For this purpose, the geographical regions shall be Africa, Asia, Eastern European (Socialist), Latin America and Western European and Others.

2. In electing the members of the Council in accordance with paragraph 1, the Assembly shall ensure that:

(a) land-locked and geographically disadvantaged States are represented to a degree which is reasonably proportionate to their representation in the Assembly;

(b) coastal States, especially developing States, which do not qualify under paragraph 1(a), (b), (c) or (d) are represented to a degree which is reasonably proportionate to their representation in the Assembly;

(c) each group of States Parties to be represented on the Council is represented by those members, if any, which are nominated by that group.

3. Elections shall take place at regular sessions of the Assembly. Each member of the Council shall be elected for four years. At the first election, however, the term of one half of the members of each group referred to in paragraph 1 shall be two years.

4. Members of the Council shall be eligible for re-election, but due regard should be paid to the desirability of rotation of membership.

5. The Council shall function at the seat of the Authority, and shall meet as often as the business of the Authority may require, but not less than three times a year.

6. A majority of the members of the Council shall constitute a quorum.

7. Each member of the Council shall have one vote.

8. (a) Decisions on questions of procedure shall be taken by a majority of the members present and voting.

(b) Decisions on questions of substance arising under the following provisions shall be taken by a two-thirds majority of the members present and voting, provided that such majority includes a majority of the members of the Council: article 162, paragraph 2, subparagraphs (f); (g); (h); (i); (n); (p); (v); article 191.

(c) Decisions on questions of substance arising under the following provisions shall be taken by a three-fourths majority of the members present and voting, provided that such majority includes a majority of the members of the Council: article 162, paragraph 1; article 162, paragraph 2, subparagraphs (a); (b); (c); (d); (e); (l); (q); (r); (s); (t); (u) in cases of non-compliance by a contractor or a sponsor; (w) provided that orders issued thereunder may be binding for not more than 30 days unless confirmed by a decision taken in accordance with subparagraph (d); article 162, paragraph 2, subparagraphs (x); (y); (z); article 163, paragraph 2; article 174, paragraph 3; Annex IV, article 11.

(d) Decisions on questions of substance arising under the following provisions shall be taken by consensus: article 162, paragraph 2(m) and (o); adoption of amendments to Part XI.

(e) For the purposes of subparagraphs (d), (f) and (g) "consensus" means the absence of any formal objection. Within 14 days of the submission of a proposal to the Council, the President of the Council shall determine whether there would be a formal objection to the adoption of the proposal. If the President determines that there would be such an objection, the President shall establish and convene, within three days following such determination, a conciliation committee consisting of not more than nine members of the Council, with the President as chairman, for the purpose of reconciling the differences and producing a proposal which can be adopted by consensus. The committee shall work expeditiously and report to the Council within 14 days following its establishment. If the committee is unable to recommend a proposal which can be adopted by consensus, it shall set out in its report the grounds on which the proposal is being opposed.

(f) Decisions on questions not listed above which the Council is authorized to take by the rules, regulations and procedures of the Authority or otherwise shall be taken pursuant to the subparagraphs of this paragraph specified in the rules, regulations and procedures or, if not specified therein, then pursuant to the subparagraph determined by the Council if possible in advance, by consensus.

(g) When the issue arises as to whether a question is within subparagraph (a), (b), (c) or (d), the question shall be treated as being within the subparagraph requiring the higher or highest majority or consensus as the case may be, unless otherwise decided by the Council by the said majority or by consensus.

9. The Council shall establish a procedure whereby a member of the authority not represented on the Council may send a representative to attend a meeting of the Council when a request is made by such member, or a matter particularly affecting it is under consideration. Such a representative shall be entitled to participate in the deliberations but not to vote.

Article 162
Powers and functions

1. The Council is the executive organ of the Authority. The Council shall have the power to establish, in conformity with this Convention and the general policies established by the Assembly, the specific policies to be pursued by the Authority on any question or matter within the competence of the Authority.

2. In addition, the Council shall:

(a) supervise and co-ordinate the implementation of the provisions of this Part on all questions and matters within the competence of the Authority and invite the attention of the Assembly to cases of non-compliance;

(b) propose to the Assembly a list of candidates for the election of the Secretary-General;

(c) recommend to the Assembly candidates for the election of the members of the Governing Board of the Enterprise and the Director-General of the Enterprise;

(d) establish, as appropriate, and with due regard to economy and efficiency, such subsidiary organs as it finds necessary for the exercise of its functions in accordance with this Part. In the composition of subsidiary

organs, emphasis shall be placed on the need for members qualified and competent in relevant technical matters dealt with by those organs provided that due account shall be taken of the principle of equitable geographical distribution and of special interests;

(e) adopt its rules of procedure including the method of selecting its president;

(f) enter into agreements with the United Nations or other international organizations on behalf of the Authority and within its competence, subject to approval by the Assembly;

(g) consider the reports of the Enterprise and transmit them to the Assembly with its recommendations;

(h) present to the Assembly annual reports and such special reports as the Assembly may request;

(i) issue directives to the Enterprise in accordance with article 170;

(j) approve plans of work in accordance with Annex III, article 6. The Council shall act upon each plan of work within 60 days of its submission by the Legal and Technical Commission at a session of the Council in accordance with the following procedures:

(i) if the Commission recommends the approval of a plan of work, it shall be deemed to have been approved by the Council if no member of the Council submits in writing to the President within 14 days a specific objection alleging non-compliance with the requirements of Annex III, article 6. If there is an objection, the conciliation procedure set forth in article 161, paragraph 8(e), shall apply. If, at the end of the conciliation procedure, the objection is still maintained, the plan of work shall be deemed to have been approved by the Council unless the Council disapproves it by consensus among its members excluding any State or States making the application or sponsoring the applicant;

(ii) if the Commission recommends the disapproval of a plan of work or does not make a recommendation, the Council may approve the plan of work by a three-fourths majority of the members present and voting, provided that such majority includes a majority of the members participating in the session;

(k) approve plans of work submitted by the Enterprise in accordance with Annex IV, article 12, applying, mutatis mutandis, the procedures set forth in subparagraph (j);

(l) exercise control over activities in the Area in accordance with article 153, paragraph 4, and the rules, regulations and procedures of the Authority;

(m) take, upon the recommendation of the Economic Planning Commission, necessary and appropriate measures in accordance with article 150, subparagraph (h), to provide protection from the adverse economic effects specified therein;

(n) make recommendations to the Assembly, on the basis of advice from the Economic Planning Commission, for a system of compensation or other measures of economic adjustment assistance as provided in article 151, paragraph 10;

(o) (i) recommend to the Assembly rules, regulations and procedures on the equitable sharing of financial and other economic benefits derived from activities in the Area and the payments and contributions made pursuant to article 82, taking into particular consideration the interests and needs of the developing States and peoples who have not attained full independence or other self-governing status;

(ii) adopt and apply provisionally, pending approval by the Assembly, the rules, regulations and procedures of the Authority, and any amendments thereto, taking into account the recommendations of the Legal and Technical Commission or other subordinate organ concerned. These rules, regulations and procedures shall relate to prospecting, exploration and exploitation in the Area and the financial management and internal administration of the Authority. Priority shall be given to the adoption of rules, regulations and procedures for the exploration for and exploitation of polymetallic nodules. Rules, regulations and procedures for the exploration for and exploitation of any resource other than polymetallic nodules shall be adopted within three years from the date of a request to the Authority by any of its members to adopt such rules, regulations and procedures in respect of such resource. All

rules, regulations and procedures shall remain in effect on a provisional basis until approved by the Assembly or until amended by the Council in the light of any views expressed by the Assembly;

(p) review the collection of all payments to be made by or to the Authority in connection with operations pursuant to this Part;

(q) make the selection from among applicants for production authorizations pursuant to Annex III, article 7, where such selection is required by that provision;

(r) submit the proposed annual budget of the Authority to the Assembly for its approval;

(s) make recommendations to the Assembly concerning policies on any question or matter within the competence of the Authority;

(t) make recommendations to the Assembly concerning suspension of the exercise of the rights and privileges of membership pursuant to article 185;

(u) institute proceedings on behalf of the Authority before the Sea-Bed Disputes Chamber in cases of non-compliance;

(v) notify the Assembly upon a decision by the Sea-Bed Disputes Chamber in proceedings instituted under subparagraph (u), and make any recommendations which it may find appropriate with respect to measures to be taken;

(w) issue emergency orders, which may include orders for the suspension or adjustment of operations, to prevent serious harm to the marine environment arising out of activities in the Area;

(x) disapprove areas for exploitation by contractors or the Enterprise in cases where substantial evidence indicates the risk of serious harm to the marine environment;

(y) establish a subsidiary organ for the elaboration of draft financial rules, regulations and procedures relating to:

(i) financial management in accordance with articles 171 to 175; and

(ii) financial arrangements in accordance with Annex III, article 13 and article 17, paragraph 1(c);

(z) establish appropriate mechanisms for directing and supervising a staff of inspectors who shall inspect activities in the Area to determine whether this Part, the rules, regulations and procedures of the Authority, and the terms and conditions of any contract with the Authority are being complied with.

Article 163
Organs of the Council

1. There are hereby established the following organs of the Council:

(a) an Economic Planning Commission;

(b) a Legal and Technical Commission.

2. Each Commission shall be composed of 15 members, elected by the Council from among the candidates nominated by the States Parties. However, if necessary, the Council may decide to increase the size of either Commission having due regard to economy and efficiency.

3. Members of a Commission shall have appropriate qualifications in the area of competence of that Commission. States Parties shall nominate candidates of the highest standards of competence and integrity with qualifications in relevant fields so as to ensure the effective exercise of the functions of the Commissions.

4. In the election of members of the Commissions, due account shall be taken of the need for equitable geographical distribution and the representation of special interests.

5. No State Party may nominate more than one candidate for the same Commission. No person shall be elected to serve on more than one Commission.

6. Members of the Commissions shall hold office for a term of five years. They shall be eligible for re-election for a further term.

7. In the event of the death, incapacity or resignation of a member of a Commission prior to the expiration of the term of office, the Council shall elect for the remainder of the term, a member from the same geographical region or area of interest.

8. Members of Commissions shall have no financial interest in any activity relating to exploration and exploitation in the Area. Subject to their responsibilities to the Commissions upon which they serve, they shall not disclose, even after the termination of their functions, any industrial secret, proprietary data which are transferred to the Authority in accordance with Annex III, article 14, or any other confidential information coming to their knowledge by reason of their duties for the Authority.

9. Each Commission shall exercise its functions in accordance with such guidelines and directives as the Council may adopt.

10. Each Commission shall formulate and submit to the Council for approval such rules and regulations as may be necessary for the efficient conduct of the Commission's functions.

11. The decision-making procedures of the Commissions shall be established by the rules, regulations and procedures of the Authority. Recommendations to the Council shall, where necessary, be accompanied by a summary on the divergencies of opinion in the Commission.

12. Each Commission shall normally function at the seat of the Authority and shall meet as often as is required for the efficient exercise of its functions.

13. In the exercise of its functions, each Commission may, where appropriate, consult another commission, any competent organ of the United Nations or of its specialized agencies or any international organizations with competence in the subject-matter of such consultation.

Article 164
The Economic Planning Commission

1. Members of the Economic Planning Commission shall have appropriate qualifications such as those relevant to mining, management of mineral resource activities, international trade or international economics. The Council shall endeavour to ensure that the membership of the Commission reflects all appropriate qualifications. The Commission shall include at least two members from developing States whose exports of the categories of minerals to be derived from the Area have a substantial bearing upon their economies.

2. The Commission shall:

(a) propose, upon the request of the Council, measures to implement decisions relating to activities in the Area taken in accordance with this Convention;

(b) review the trends of and the factors affecting supply, demand and prices of materials which may be derived from the Area, bearing in mind the interests of both importing and exporting countries, and in particular of the developing States among them;

(c) examine any situation likely to lead to the adverse effects referred to in article 150, subparagraph (h), brought to its attention by the State Party or States Parties concerned, and make appropriate recommendations to the Council;

(d) propose to the Council for submission to the Assembly, as provided in article 151, paragraph 10, a system of compensation or other measures of economic adjustment assistance for developing States which suffer adverse effects caused by activities in the Area. The Commission shall make the recommendations to the Council that are necessary for the application of the system or other measures adopted by the Assembly in specific cases.

Article 165
The Legal and Technical Commission

1. Members of the Legal and Technical Commission shall have appropriate qualifications such as those relevant to exploration for and exploitation and processing of mineral resources, oceanology, protection of the marine environment, or economic or legal matters relating to ocean mining and related fields of expertise. The Council shall endeavour to ensure that the membership of the Commission reflects all appropriate qualifications.

2. The Commission shall:

(a) make recommendations with regard to the exercise of the Authority's functions upon the request of the Council;

(b) review formal written plans of work for activities in the Area in accordance with article 153, paragraph 3, and submit appropriate recommendations to the Council. The Commission shall base its recommendations solely on the grounds stated in Annex III and shall report fully thereon to the Council;

(c) supervise, upon the request of the Council, activities in the Area, where appropriate, in consultation and collaboration with any entity carrying out such activities or State or States concerned and report to the Council;

(d) prepare assessments of the environmental implications of activities in the Area;

(e) make recommendations to the Council on the protection of the marine environment, taking into account the views of recognized experts in that field;

(f) formulate and submit to the Council the rules, regulations and procedures referred to in article 162, paragraph 2(o), taking into account all relevant factors including assessments of the environmental implications of activities in the Area;

(g) keep such rules, regulations and procedures under review and recommend to the Council from time to time such amendments thereto as it may deem necessary or desirable;

(h) make recommendations to the Council regarding the establishment of a monitoring programme to observe, measure, evaluate and analyse, by recognized scientific methods, on a regular basis, the risks or effects of pollution of the marine environment resulting from activities in the Area, ensure that existing regulations are adequate and are complied with and co-ordinate the implementation of the monitoring programme approved by the Council;

(i) recommend to the Council that proceedings be instituted on behalf of the Authority before the Sea-Bed Disputes Chamber, in accordance with this Part and the relevant Annexes taking into account particularly article 187;

(j) make recommendations to the Council with respect to measures to be taken, upon a decision by the Sea-Bed Disputes Chamber in proceedings instituted in accordance with subparagraph (i);

(k) make recommendations to the Council to issue emergency orders, which may include orders for the suspension or adjustment of operations, to prevent serious harm to the marine environment arising out of activities in the Area. Such recommendations shall be taken up by the Council on a priority basis;

(l) make recommendations to the Council to disapprove areas for exploitation by contractors or the Enterprise in cases where substantial evidence indicates the risk of serious harm to the marine environment;

(m) make recommendations to the Council regarding the direction and supervision of a staff of inspectors who shall inspect activities in the Area to determine whether the provisions of this Part, the rules, regulations and procedures of the Authority, and the terms and conditions of any contract with the Authority are being complied with;

(n) calculate the production ceiling and issue production authorizations on behalf of the Authority pursuant to article 151, paragraphs 2 to 7, following any necessary selection among applicants for production authorizations by the Council in accordance with Annex III, article 7.

3. The members of the Commission shall, upon request by any State Party or other party concerned, be accompanied by a representative of such State or other party concerned when carrying out their function of supervision and inspection.

SUBSECTION D. THE SECRETARIAT

Article 166
The Secretariat

1. The Secretariat of the Authority shall comprise a Secretary-General and such staff as the Authority may require.

2. The Secretary-General shall be elected for four years by the Assembly from among the candidates proposed by the Council and may be re-elected.

3. The Secretary-General shall be the chief administrative officer of the Authority, and shall act in that capacity in all meetings of the Assembly, of the Council and of any subsidiary organ, and shall perform such other administrative functions as are entrusted to the Secretary-General by these organs.

4. The Secretary-General shall make an annual report to the Assembly on the work of the Authority.

Article 167
The staff of the Authority

1. The staff of the Authority shall consist of such qualified scientific and technical and other personnel as may be required to fulfil the administrative functions of the Authority.

2. The paramount consideration in the recruitment and employment of the staff and in the determination of their conditions of service shall be the necessity of securing the highest standards of efficiency, competence and integrity. Subject to this consideration, due regard shall be paid to the importance of recruiting the staff on as wide a geographical basis as possible.

3. The staff shall be appointed by the Secretary-General. The terms and conditions on which they shall be appointed, remunerated and dismissed shall be in accordance with the rules, regulations and procedures of the Authority.

Article 168
International character of the Secretariat

1. In the performance of their duties the Secretary-General and the staff shall not seek or receive instructions from any government or from any other source external to the Authority. They shall refrain from any action which might reflect on their position as international officials responsible only to the Authority. Each State Party undertakes to respect the exclusively international character of the responsibilities of the Secretary-General and the staff and not to seek to influence them in the discharge of their responsibilities. Any violation of responsibilities by a staff

member shall be submitted to the appropriate administrative tribunal as provided in the rules, regulations and procedures of the Authority.

2. The Secretary-General and the staff shall have no financial interest in any activity relating to exploration and exploitation in the Area. Subject to their responsibilities to the Authority, they shall not disclose, even after the termination of their functions, any industrial secret, proprietary data which are transferred to the Authority in accordance with Annex III, article 14, or any other confidential information coming to their knowledge by reason of their employment with the Authority.

3. Violations of the obligations of a staff member of the Authority set forth in paragraph 2 shall, on the request of a State Party affected by such violation, or a natural or juridical person, sponsored by a State Party as provided in article 153, paragraph 2(b), and affected by such violation, be submitted by the Authority against the staff member concerned to a tribunal designated by the rules, regulations and procedures of the Authority. The Party affected shall have the right to take part in the proceedings. If the tribunal so recommends, the Secretary-General shall dismiss the staff member concerned.

4. The rules, regulations and procedures of the Authority shall contain such provisions as are necessary to implement this article.

Article 169
Consultation and co-operation with international and non-governmental organizations

1. The Secretary-General shall, on matters within the competence of the Authority, make suitable arrangements, with the approval of the Council, for consultation and co-operation with international and non-governmental organizations recognized by the Economic and Social Council of the United Nations.

2. Any organization with which the Secretary-General has entered into an arrangement under paragraph 1 may designate representatives to attend meetings of the organs of the Authority as observers in accordance with the rules of procedure of these organs. Procedures shall be established for obtaining the views of such organizations in appropriate cases.

3. The Secretary-General may distribute to States Parties written reports submitted by the non-governmental organizations referred to in paragraph 1 on subjects in which they have special competence and which are related to the work of the Authority.

SUBSECTION E. THE ENTERPRISE

Article 170
The Enterprise

1. The Enterprise shall be the organ of the Authority which shall carry out activities in the Area directly, pursuant to article 153, paragraph 2(a), as well as the transporting, processing and marketing of minerals recovered from the Area.

2. The Enterprise shall, within the framework of the international legal personality of the Authority, have such legal capacity as is provided for in the Statute set forth in Annex IV. The Enterprise shall act in accordance with this Convention and the rules, regulations and procedures of the Authority, as well as the general policies established by the Assembly, and shall be subject to the directives and control of the Council.

3. The Enterprise shall have its principal place of business at the seat of the Authority.

4. The Enterprise shall, in accordance with article 173, paragraph 2, and Annex IV, article 11, be provided with such funds as it may require to carry out its functions, and shall receive technology as provided in article 144 and other relevant provisions of this Convention.

SUBSECTION F. FINANCIAL ARRANGEMENTS OF THE AUTHORITY

Article 171
Funds of the Authority

The funds of the Authority shall include:

(a) assessed contributions made by members of the Authority in accordance with article 160, paragraph 2(e);

(b) funds received by the Authority pursuant to Annex III, article 13, in connection with activities in the Area;

(c) funds transferred from the Enterprise in accordance with Annex IV, article 10;

(d) funds borrowed pursuant to article 174;

(e) voluntary contributions made by members or other entities; and

(f) payments to a compensation fund, in accordance with article 151, paragraph 10, whose sources are to be recommended by the Economic Planning Commission.

Article 172
Annual budget of the Authority

The Secretary-General shall draft the proposed annual budget of the Authority and submit it to the Council. The Council shall consider the proposed annual budget and submit it to the Assembly, together with any recommendations thereon. The Assembly shall consider and approve the proposed annual budget in accordance with article 160, paragraph 2(h).

Article 173
Expenses of the Authority

1. The contributions referred to in article 171, subparagraph (a), shall be paid into a special account to meet the administrative expenses of the Authority until the Authority has sufficient funds from other sources to meet those expenses.

2. The administrative expenses of the Authority shall be a first call upon the funds of the Authority. Except for the assessed contributions referred to in article 171, subparagraph (a), the funds which remain after payment of administrative expenses may, inter alia:

(a) be shared in accordance with article 140 and article 160, paragraph 2(g);

(b) be used to provide the Enterprise with funds in accordance with article 170, paragraph 4;

(c) be used to compensate developing States in accordance with article 151, paragraph 10, and article 160, paragraph 2(l).

Article 174
Borrowing power of the Authority

1. The Authority shall have the power to borrow funds.

2. The Assembly shall prescribe the limits on the borrowing power of the Authority in the financial regulations adopted pursuant to article 160, paragraph 2(f).

3. The Council shall exercise the borrowing power of the Authority.

4. States Parties shall not be liable for the debts of the Authority.

Article 175
Annual audit

The records, books and accounts of the Authority, including its annual financial statements, shall be audited annually by an independent auditor appointed by the Assembly.

SUBSECTION G. LEGAL STATUS, PRIVILEGES AND IMMUNITIES

Article 176
Legal status

The Authority shall have international legal personality and such legal capacity as may be necessary for the exercise of its functions and the fulfilment of its purposes.

Article 177
Privileges and immunities

To enable the Authority to exercise its functions, it shall enjoy in the territory of each State Party the privileges and immunities set forth in this subsection. The privileges and immunities relating to the Enterprise shall be those set forth in Annex IV, article 13.

Article 178
Immunity from legal process

The Authority, its property and assets, shall enjoy immunity from legal process except to the extent that the Authority expressly waives this immunity in a particular case.

Article 179
Immunity from search and any form of seizure

The property and assets of the Authority, wherever located and by whomsoever held, shall be immune from search, requisition, confiscation, expropriation or any other form of seizure by executive or legislative action.

Article 180
Exemption from restrictions, regulations, controls and moratoria

The property and assets of the Authority shall be exempt from restrictions, regulations, controls and moratoria of any nature.

Article 181
Archives and official communications of the Authority

1. The archives of the Authority, wherever located, shall be inviolable.

2. Proprietary data, industrial secrets or similar information and personnel records shall not be placed in archives which are open to public inspection.

3. With regard to its official communications, the Authority shall be accorded by each State Party treatment no less favourable than that accorded by that State to other international organizations.

Article 182
Privileges and immunities of certain persons connected with the Authority

Representatives of States Parties attending meetings of the Assembly, the Council or organs of the Assembly or the Council, and the Secretary-General and staff of the Authority, shall enjoy in the territory of each State Party:

(a) immunity from legal process with respect to acts performed by them in the exercise of their functions, except to the extent that the State which they represent or the Authority, as appropriate, expressly waives this immunity in a particular case;

(b) if they are not nationals of that State Party, the same exemptions from immigration restrictions, alien registration requirements and national service obligations, the same facilities as regards exchange restrictions and the same treatment in respect of travelling facilities as are accorded by that State to the representatives, officials and employees of comparable rank of other States Parties.

Article 183
Exemption from taxes and customs duties

1. Within the scope of its official activities, the Authority, its assets and property, its income, and its operations and transactions, authorized by this Convention, shall be exempt from all direct taxation and goods imported or exported for its official use shall be exempt from all customs duties. The Authority shall not claim exemption from taxes which are no more than charges for services rendered.

2. When purchases of goods or services of substantial value necessary for the official activities of the Authority are made by or on behalf of the Authority, and when the price of such goods or services includes taxes or duties, appropriate measures shall, to the extent practicable, be taken by States Parties to grant exemption from such taxes or duties or provide for their reimbursement. Goods imported or purchased under an exemption provided for in this article shall not be sold or otherwise disposed of in the territory of the State Party which granted the exemption, except under conditions agreed with that State Party.

3. No tax shall be levied by States Parties on or in respect of salaries and emoluments paid or any other form of payment made by the Authority to the Secretary-General and staff of the Authority, as well as experts performing missions for the Authority, who are not their nationals.

SUBSECTION H. SUSPENSION OF THE EXERCISE OF RIGHTS AND PRIVILEGES OF MEMBERS

Article 184
Suspension of the exercise of voting rights

A State Party which is in arrears in the payment of its financial contributions to the Authority shall have no vote if the amount of its arrears equals or exceeds the amount of the contributions due from it for the preceding two full years. The Assembly may, nevertheless, permit such a member to vote if it is satisfied that the failure to pay is due to conditions beyond the control of the member.

Article 185
Suspension of exercise of rights and privileges of membership

1. A State Party which has grossly and persistently violated the provisions of this Part may be suspended from the exercise of the rights and privileges of membership by the Assembly upon the recommendation of the Council.

2. No action may be taken under paragraph 1 until the Sea-Bed Disputes Chamber has found that a State Party has grossly and persistently violated the provisions of this Part.

SECTION 5. SETTLEMENT OF DISPUTES AND ADVISORY OPINIONS

Article 186
Sea-Bed Disputes Chamber of the International Tribunal for the Law of the Sea

The establishment of the Sea-Bed Disputes Chamber and the manner in which it shall exercise its jurisdiction shall be governed by the provisions of this section, of Part XV and of Annex VI.

Article 187
Jurisdiction of the Sea-Bed Disputes Chamber

The Sea-Bed Disputes Chamber shall have jurisdiction under this Part and the Annexes relating thereto in disputes with respect to activities in the Area falling within the following categories:

(a) disputes between States Parties concerning the interpretation or application of this Part and the Annexes relating thereto;

(b) disputes between a State Party and the Authority concerning:

(i) acts or omissions of the Authority or of a State Party alleged to be in violation of this Part or the Annexes relating thereto or of rules, regulations and procedures of the Authority adopted in accordance therewith; or

(ii) acts of the Authority alleged to be in excess of jurisdiction or a misuse of power;

(c) disputes between parties to a contract, being States Parties, the Authority or the Enterprise, state enterprises and natural or juridical persons referred to in article 153, paragraph 2(b), concerning:

(i) the interpretation or application of a relevant contract or a plan of work; or

(ii) acts or omissions of a party to the contract relating to activities in the Area and directed to the other party or directly affecting its legitimate interests;

(d) disputes between the Authority and a prospective contractor who has been sponsored by a State as provided in article 153, paragraph 2 (b), and has duly fulfilled the conditions referred to in Annex III, article 4, paragraph 6, and article 13, paragraph 2, concerning the refusal of a contract or a legal issue arising in the negotiation of the contract;

(e) disputes between the Authority and a State Party, a state enterprise or a natural or juridical person sponsored by a State Party as provided for in article 153, paragraph 2(b), where it is alleged that the Authority has incurred liability as provided in Annex III, article 22;

(f) any other disputes for which the jurisdiction of the Chamber is specifically provided in this Convention.

Article 188
Submission of disputes to a special chamber of the International Tribunal for the Law of the Sea or an ad hoc chamber of the Sea-Bed Disputes Chamber or to binding commercial arbitration

1. Disputes between States Parties referred to in article 187, subparagraph (a), may be submitted:

(a) at the request of the parties to the dispute, to a special chamber of the International Tribunal for the Law of the Sea to be formed in accordance with Annex VI, articles 15 and 17; or

(b) at the request of any party to the dispute, to an ad hoc chamber of the Sea-Bed Disputes Chamber to be formed in accordance with Annex VI, article 36.

2. (a) Disputes concerning the interpretation or application of a contract referred to in article 187, subparagraph (c) (i), shall be submitted, at the request of any party to the dispute, to binding commercial arbitration, unless the parties otherwise agree. A commercial arbitral tribunal to which the dispute is submitted shall have no jurisdiction to decide any question of interpretation of this Convention. When the dispute also involves a question of the interpretation of Part XI and the Annexes relating thereto, with respect to activities in the Area, that question shall be referred to the Sea-Bed Disputes Chamber for a ruling.

(b) If, at the commencement of or in the course of such arbitration, the arbitral tribunal determines, either at the request of any party to the dispute or proprio motu, that its decision depends upon a ruling of the Sea-Bed Disputes Chamber, the arbitral tribunal shall refer such question to the Sea-Bed Disputes Chamber for such ruling. The arbitral tribunal shall then proceed to render its award in conformity with the ruling of the Sea-Bed Disputes Chamber.

(c) In the absence of a provision in the contract on the arbitration procedure to be applied in the dispute, the arbitration shall be conducted in accordance with the UNCITRAL Arbitration Rules or such other arbitration rules as may be prescribed in the rules, regulations and procedures of the Authority, unless the parties to the dispute otherwise agree.

Article 189
Limitation on jurisdiction with regard to decisions of the Authority

The Sea-Bed Disputes Chamber shall have no jurisdiction with regard to the exercise by the Authority of its discretionary powers in accordance with this Part; in no case shall it substitute its discretion for that of the Authority. Without prejudice to article 191, in exercising its jurisdiction pursuant to article 187, the Sea-Bed Disputes Chamber shall not pronounce itself on the question of whether any rules, regulations and procedures of the Authority are in conformity with this Convention, nor declare invalid any such rules, regulations and procedures. Its jurisdiction in this regard shall be confined to deciding claims that the application of any rules, regulations and procedures of the Authority in individual cases would be in conflict with the contractual obligations of the parties to the dispute or their obligations under this Convention, claims concerning excess of jurisdiction or misuse of power, and to claims for damages to be paid or other remedy to be given to the party concerned for the failure of the other party to comply with its contractual obligations or its obligations under this Convention.

Article 190
Participation and appearance of sponsoring States Parties in proceedings

1. If a natural or juridical person is a party to a dispute referred to in article 187, the sponsoring State shall be given notice thereof and shall have the right to participate in the proceedings by submitting written or oral statements.

2. If an action is brought against a State Party by a natural or juridical person sponsored by another State Party in a dispute referred to in article 187, subparagraph (c), the respondent State may request the State sponsoring that

person to appear in the proceedings on behalf of that person. Failing such appearance, the respondent State may arrange to be represented by a juridical person of its nationality.

Article 191
Advisory opinions

The Sea-Bed Disputes Chamber shall give advisory opinions at the request of the Assembly or the Council on legal questions arising within the scope of their activities. Such opinions shall be given as a matter of urgency.

PART XII

PROTECTION AND PRESERVATION OF THE MARINE ENVIRONMENT

SECTION 1. GENERAL PROVISIONS

Article 192
General obligation

States have the obligation to protect and preserve the marine environment.

Article 193
Sovereign right of States to exploit their natural resources

States have the sovereign right to exploit their natural resources pursuant to their environmental policies and in accordance with their duty to protect and preserve the marine environment.

Article 194
Measures to prevent, reduce and control pollution of the marine environment

1. States shall take, individually or jointly as appropriate, all measures consistent with this Convention that are necessary to prevent, reduce and control pollution of the marine environment from any source, using for this purpose the best practicable means at their disposal and in accordance with their capabilities, and they shall endeavour to harmonize their policies in this connection.

2. States shall take all measures necessary to ensure that activities under their jurisdiction or control are so conducted as not to cause damage by pollution to other States and their environment, and that pollution arising from incidents or activities under their jurisdiction or control does not spread beyond the areas where they exercise sovereign rights in accordance with this Convention.

3. The measures taken pursuant to this Part shall deal with all sources of pollution of the marine environment. These measures shall include, inter alia, those designed to minimize to the fullest possible extent:

(a) the release of toxic, harmful or noxious substances, especially those which are persistent, from land-based sources, from or through the atmosphere or by dumping;

(b) pollution from vessels, in particular measures for preventing accidents and dealing with emergencies, ensuring the safety of operations at sea, preventing intentional and unintentional discharges, and regulating the design, construction, equipment, operation and manning of vessels;

(c) pollution from installations and devices used in exploration or exploitation of the natural resources of the sea-bed and subsoil, in particular measures for preventing accidents and dealing with emergencies, ensuring

the safety of operations at sea, and regulating the design, construction, equipment, operation and manning of such installations or devices;

(d) pollution from other installations and devices operating in the marine environment, in particular measures for preventing accidents and dealing with emergencies, ensuring the safety of operations at sea, and regulating the design, construction, equipment, operation and manning of such installations or devices.

4. In taking measures to prevent, reduce or control pollution of the marine environment, States shall refrain from unjustifiable interference with activities carried out by other States in the exercise of their rights and in pursuance of their duties in conformity with this Convention.

5. The measures taken in accordance with this Part shall include those necessary to protect and preserve rare or fragile ecosystems as well as the habitat of depleted, threatened or endangered species and other forms of marine life.

Article 195
Duty not to transfer damage or hazards or transform one type of pollution into another

In taking measures to prevent, reduce and control pollution of the marine environment, States shall act so as not to transfer, directly or indirectly, damage or hazards from one area to another or transform one type of pollution into another.

Article 196
Use of technologies or introduction of alien or new species

1. States shall take all measures necessary to prevent, reduce and control pollution of the marine environment resulting from the use of technologies under their jurisdiction or control, or the intentional or accidental introduction of species, alien or new, to a particular part of the marine environment, which may cause significant and harmful changes thereto.

2. This article does not affect the application of this Convention regarding the prevention, reduction and control of pollution of the marine environment.

SECTION 2. GLOBAL AND REGIONAL CO-OPERATION

Article 197
Co-operation on a global or regional basis

States shall co-operate on a global basis and, as appropriate, on a regional basis, directly or through competent international organizations, in formulating and elaborating international rules, standards and recommended practices and procedures consistent with this Convention, for the protection and preservation of the marine environment, taking into account characteristic regional features.

Article 198
Notification of imminent or actual damage

When a State becomes aware of cases in which the marine environment is in imminent danger of being damaged or has been damaged by pollution, it shall immediately notify other States it deems likely to be affected by such damage, as well as the competent international organizations.

Article 199
Contingency plans against pollution

In the cases referred to in article 198, States in the area affected, in accordance with their capabilities, and the competent international organizations shall co-operate, to the extent possible, in eliminating the effects of pollution and preventing or minimizing the damage. To this end, States shall jointly develop and promote contingency plans for responding to pollution incidents in the marine environment.

Article 200
Studies, research programmes and exchange of information and data

States shall co-operate, directly or through competent international organizations, for the purpose of promoting studies, undertaking programmes of scientific research and encouraging the exchange of information and data acquired about pollution of the marine environment. They shall endeavour to participate actively in regional and global programmes to acquire knowledge for the assessment of the nature and extent of pollution, exposure to it, and its pathways, risks and remedies.

Article 201
Scientific criteria for regulations

In the light of the information and data acquired pursuant to article 200, States shall co-operate, directly or through competent international organizations, in establishing appropriate scientific criteria for the formulation and elaboration of rules, standards and recommended practices and procedures for the prevention, reduction and control of pollution of the marine environment.

SECTION 3. TECHNICAL ASSISTANCE

Article 202
Scientific and technical assistance to developing States

States shall, directly or through competent international organizations:

(a) promote programmes of scientific, educational, technical, and other assistance to developing States for the protection and preservation of the marine environment and the prevention, reduction and control of marine pollution. Such assistance shall include, inter alia:

  (i) training of their scientific and technical personnel;

  (ii) facilitating their participation in relevant international programmes;

  (iii) supplying them with necessary equipment and facilities;

  (iv) enhancing their capacity to manufacture such equipment;

  (v) advice on and developing facilities for research, monitoring, educational and other programmes;

(b) provide appropriate assistance, especially to developing States, for the minimization of the effects of major incidents which may cause serious pollution of the marine environment;

(c) provide appropriate assistance, especially to developing States, concerning the preparation of environmental assessments.

Article 203
Preferential treatment for developing States

Developing States shall, for the purposes of prevention, reduction and control of pollution of the marine environment or minimization of its effects, be granted preference by international organizations in:

(a) the allocation of appropriate funds and technical assistance; and

(b) the utilization of their specialized services.

SECTION 4. MONITORING AND ENVIRONMENTAL ASSESSMENT

Article 204
Monitoring of the risks or effects of pollution

1. States shall, consistent with the rights of other States, endeavour, as far as practicable, directly or through the competent international organizations, to observe, measure, evaluate and analyse, by recognized scientific methods, the risks or effects of pollution of the marine environment.

2. In particular, States shall keep under surveillance the effects of any activities which they permit or in which they engage in order to determine whether these activities are likely to pollute the marine environment.

Article 205
Publication of reports

States shall publish reports of the results obtained pursuant to article 204 or provide such reports at appropriate intervals to the competent international organizations, which should make them available to all States.

Article 206
Assessment of potential effects of activities

When States have reasonable grounds for believing that planned activities under their jurisdiction or control may cause substantial pollution of or significant and harmful changes to the marine environment, they shall, as far as practicable, assess the potential effects of such activities on the marine environment and shall communicate reports of the results of such assessments in the manner provided in article 205.

SECTION 5. INTERNATIONAL RULES AND NATIONAL LEGISLATION TO PREVENT, REDUCE AND CONTROL POLLUTION OF THE MARINE ENVIRONMENT

Article 207
Pollution from land-based sources

1. States shall adopt laws and regulations to prevent, reduce and control pollution of the marine environment from land-based sources, including rivers, estuaries, pipelines and outfall structures, taking into account internationally agreed rules, standards and recommended practices and procedures.

2. States shall take other measures as may be necessary to prevent, reduce and control such pollution.

3. States shall endeavour to harmonize their policies in this connection at the appropriate regional level.

4. States, acting especially through competent international organizations or diplomatic conference, shall endeavour to establish global and regional rules, standards and recommended practices and procedures to prevent, reduce and control pollution of the marine environment from land-based sources, taking into account characteristic regional features, the economic capacity of developing States and their need for economic development. Such rules, standards and recommended practices and procedures shall be re-examined from time to time as necessary.

5. Laws, regulations, measures, rules, standards and recommended practices and procedures referred to in paragraphs 1, 2 and 4 shall include those designed to minimize, to the fullest extent possible, the release of toxic, harmful or noxious substances, especially those which are persistent, into the marine environment.

Article 208
Pollution from sea-bed activities subject to national jurisdiction

1. Coastal States shall adopt laws and regulations to prevent, reduce and control pollution of the marine environment arising from or in connection with sea-bed activities subject to their jurisdiction and from artificial islands, installations and structures under their jurisdiction, pursuant to articles 60 and 80.

2. States shall take other measures as may be necessary to prevent, reduce and control such pollution.

3. Such laws, regulations and measures shall be no less effective than international rules, standards and recommended practices and procedures.

4. States shall endeavour to harmonize their policies in this connection at the appropriate regional level.

5. States, acting especially through competent international organizations or diplomatic conference, shall establish global and regional rules, standards and recommended practices and procedures to prevent, reduce and control pollution of the marine environment referred to in paragraph 1. Such rules, standards and recommended practices and procedures shall be re-examined from time to time as necessary.

Article 209
Pollution from activities in the Area

1. International rules, regulations and procedures shall be established in accordance with Part XI to prevent, reduce and control pollution of the marine environment from activities in the Area. Such rules, regulations and procedures shall be re-examined from time to time as necessary.

2. Subject to the relevant provisions of this section, States shall adopt laws and regulations to prevent, reduce and control pollution of the marine environment from activities in the Area undertaken by vessels, installations, structures and other devices flying their flag or of their registry or operating under their authority, as the case may be. The requirements of such laws and regulations shall be no less effective than the international rules, regulations and procedures referred to in paragraph 1.

Article 210
Pollution by dumping

1. States shall adopt laws and regulations to prevent, reduce and control pollution of the marine environment by dumping.

2. States shall take other measures as may be necessary to prevent, reduce and control such pollution.

3. Such laws, regulations and measures shall ensure that dumping is not carried out without the permission of the competent authorities of States.

4. States, acting especially through competent international organizations or diplomatic conference, shall endeavour to establish global and regional rules, standards and recommended practices and procedures to prevent,

reduce and control such pollution. Such rules, standards and recommended practices and procedures shall be re-examined from time to time as necessary.

5. Dumping within the territorial sea and the exclusive economic zone or onto the continental shelf shall not be carried out without the express prior approval of the coastal State, which has the right to permit, regulate and control such dumping after due consideration of the matter with other States which by reason of their geographical situation may be adversely affected thereby.

6. National laws, regulations and measures shall be no less effective in preventing, reducing and controlling such pollution than the global rules and standards.

Article 211
Pollution from vessels

1. States, acting through the competent international organization or general diplomatic conference, shall establish international rules and standards to prevent, reduce and control pollution of the marine environment from vessels and promote the adoption, in the same manner, wherever appropriate, of routing systems designed to minimize the threat of accidents which might cause pollution of the marine environment, including the coastline, and pollution damage to the related interests of coastal States. Such rules and standards shall, in the same manner, be re-examined from time to time as necessary.

2. States shall adopt laws and regulations for the prevention, reduction and control of pollution of the marine environment from vessels flying their flag or of their registry. Such laws and regulations shall at least have the same effect as that of generally accepted international rules and standards established through the competent international organization or general diplomatic conference.

3. States which establish particular requirements for the prevention, reduction and control of pollution of the marine environment as a condition for the entry of foreign vessels into their ports or internal waters or for a call at their off-shore terminals shall give due publicity to such requirements and shall communicate them to the competent international organization. Whenever such requirements are established in identical form by two or more coastal States in an endeavour to harmonize policy, the communication shall indicate which States are participating in such co-operative arrangements. Every State shall require the master of a vessel flying its flag or of its registry, when navigating within the territorial sea of a State participating in such co-operative arrangements, to furnish, upon the request of that State, information as to whether it is proceeding to a State of the same region participating in such co-operative arrangements and, if so, to indicate whether it complies with the port entry requirements of that State. This article is without prejudice to the continued exercise by a vessel of its right of innocent passage or to the application of article 25, paragraph 2.

4. Coastal States may, in the exercise of their sovereignty within their territorial sea, adopt laws and regulations for the prevention, reduction and control of marine pollution from foreign vessels, including vessels exercising the right of innocent passage. Such laws and regulations shall, in accordance with Part II, section 3, not hamper innocent passage of foreign vessels.

5. Coastal States, for the purpose of enforcement as provided for in section 6, may in respect of their exclusive economic zones adopt laws and regulations for the prevention, reduction and control of pollution from vessels conforming to and giving effect to generally accepted international rules and standards established through the competent international organization or general diplomatic conference.

6. (a) Where the international rules and standards referred to in paragraph 1 are inadequate to meet special circumstances and coastal States have reasonable grounds for believing that a particular, clearly defined area of their respective exclusive economic zones is an area where the adoption of special mandatory measures for the prevention of pollution from vessels is required for recognized technical reasons in relation to its oceanographical and ecological conditions, as well as its utilization or the protection of its resources and the particular character of its traffic, the coastal States, after appropriate consultations through the competent international organization with any other States concerned, may, for that area, direct a communication to that organization, submitting scientific and technical evidence in support and information on necessary reception facilities. Within 12 months after receiving such a communication, the organization shall determine whether the conditions in that area correspond to the requirements set out above. If the

organization so determines, the coastal States may, for that area, adopt laws and regulations for the prevention, reduction and control of pollution from vessels implementing such international rules and standards or navigational practices as are made applicable, through the organization, for special areas. These laws and regulations shall not become applicable to foreign vessels until 15 months after the submission of the communication to the organization.

(b) The coastal States shall publish the limits of any such particular, clearly defined area.

(c) If the coastal States intend to adopt additional laws and regulations for the same area for the prevention, reduction and control of pollution from vessels, they shall, when submitting the aforesaid communication, at the same time notify the organization thereof. Such additional laws and regulations may relate to discharges or navigational practices but shall not require foreign vessels to observe design, construction, manning or equipment standards other than generally accepted international rules and standards; they shall become applicable to foreign vessels 15 months after the submission of the communication to the organization, provided that the organization agrees within 12 months after the submission of the communication.

7. The international rules and standards referred to in this article should include inter alia those relating to prompt notification to coastal States, whose coastline or related interests may be affected by incidents, including maritime casualties, which involve discharges or probability of discharges.

Article 212
Pollution from or through the atmosphere

1. States shall adopt laws and regulations to prevent, reduce and control pollution of the marine environment from or through the atmosphere, applicable to the air space under their sovereignty and to vessels flying their flag or vessels or aircraft of their registry, taking into account internationally agreed rules, standards and recommended practices and procedures and the safety of air navigation.

2. States shall take other measures as may be necessary to prevent, reduce and control such pollution.

3. States, acting especially through competent international organizations or diplomatic conference, shall endeavour to establish global and regional rules, standards and recommended practices and procedures to prevent, reduce and control such pollution.

SECTION 6. ENFORCEMENT

Article 213
Enforcement with respect to pollution from land-based sources

States shall enforce their laws and regulations adopted in accordance with article 207 and shall adopt laws and regulations and take other measures necessary to implement applicable international rules and standards established through competent international organizations or diplomatic conference to prevent, reduce and control pollution of the marine environment from land-based sources.

Article 214
Enforcement with respect to pollution from sea-bed activities

States shall enforce their laws and regulations adopted in accordance with article 208 and shall adopt laws and regulations and take other measures necessary to implement applicable international rules and standards established through competent international organizations or diplomatic conference to prevent, reduce and control pollution of the marine environment arising from or in connection with sea-bed activities subject to their jurisdiction and from artificial islands, installations and structures under their jurisdiction, pursuant to articles 60 and 80.

Article 215
Enforcement with respect to pollution from activities in the Area

Enforcement of international rules, regulations and procedures established in accordance with Part XI to prevent, reduce and control pollution of the marine environment from activities in the Area shall be governed by that Part.

Article 216
Enforcement with respect to pollution by dumping

1. Laws and regulations adopted in accordance with this Convention and applicable international rules and standards established through competent international organizations or diplomatic conference for the prevention, reduction and control of pollution of the marine environment by dumping shall be enforced:

(a) by the coastal State with regard to dumping within its territorial sea or its exclusive economic zone or onto its continental shelf;

(b) by the flag State with regard to vessels flying its flag or vessels or aircraft of its registry;

(c) by any State with regard to acts of loading of wastes or other matter occurring within its territory or at its off-shore terminals.

2. No State shall be obliged by virtue of this article to institute proceedings when another State has already instituted proceedings in accordance with this article.

Article 217
Enforcement by flag States

1. States shall ensure compliance by vessels flying their flag or of their registry with applicable international rules and standards, established through the competent international organization or general diplomatic conference, and with their laws and regulations adopted in accordance with this Convention for the prevention, reduction and control of pollution of the marine environment from vessels and shall accordingly adopt laws and regulations and take other measures necessary for their implementation. Flag States shall provide for the effective enforcement of such rules, standards, laws and regulations, irrespective of where a violation occurs.

2. States shall, in particular, take appropriate measures in order to ensure that vessels flying their flag or of their registry are prohibited from sailing, until they can proceed to sea in compliance with the requirements of the international rules and standards referred to in paragraph 1, including requirements in respect of design, construction, equipment and manning of vessels.

3. States shall ensure that vessels flying their flag or of their registry carry on board certificates required by and issued pursuant to international rules and standards referred to in paragraph 1. States shall ensure that vessels flying their flag are periodically inspected in order to verify that such certificates are in conformity with the actual condition of the vessels. These certificates shall be accepted by other States as evidence of the condition of the vessels and shall be regarded as having the same force as certificates issued by them, unless there are clear grounds for believing that the condition of the vessel does not correspond substantially with the particulars of the certificates.

4. If a vessel commits a violation of rules and standards established through the competent international organization or general diplomatic conference, the flag State, without prejudice to articles 218, 220 and 228, shall provide for immediate investigation and where appropriate institute proceedings in respect of the alleged violation irrespective of where the violation occurred or where the pollution caused by such violation has occurred or has been spotted.

5. Flag States conducting an investigation of the violation may request the assistance of any other State whose co-operation could be useful in clarifying the circumstances of the case. States shall endeavour to meet appropriate requests of flag States.

6. States shall, at the written request of any State, investigate any violation alleged to have been committed by vessels flying their flag. If satisfied that sufficient evidence is available to enable proceedings to be brought in respect of the alleged violation, flag States shall without delay institute such proceedings in accordance with their laws.

7. Flag States shall promptly inform the requesting State and the competent international organization of the action taken and its outcome. Such information shall be available to all States.

8. Penalties provided for by the laws and regulations of States for vessels flying their flag shall be adequate in severity to discourage violations wherever they occur.

Article 218
Enforcement by port States

1. When a vessel is voluntarily within a port or at an off-shore terminal of a State, that State may undertake investigations and, where the evidence so warrants, institute proceedings in respect of any discharge from that vessel outside the internal waters, territorial sea or exclusive economic zone of that State in violation of applicable international rules and standards established through the competent international organization or general diplomatic conference.

2. No proceedings pursuant to paragraph 1 shall be instituted in respect of a discharge violation in the internal waters, territorial sea or exclusive economic zone of another State unless requested by that State, the flag State, or a State damaged or threatened by the discharge violation, or unless the violation has caused or is likely to cause pollution in the internal waters, territorial sea or exclusive economic zone of the State instituting the proceedings.

3. When a vessel is voluntarily within a port or at an off-shore terminal of a State, that State shall, as far as practicable, comply with requests from any State for investigation of a discharge violation referred to in paragraph 1, believed to have occurred in, caused, or threatened damage to the internal waters, territorial sea or exclusive economic zone of the requesting State. It shall likewise, as far as practicable, comply with requests from the flag State for investigation of such a violation, irrespective of where the violation occurred.

4. The records of the investigation carried out by a port State pursuant to this article shall be transmitted upon request to the flag State or to the coastal State. Any proceedings instituted by the port State on the basis of such an investigation may, subject to section 7, be suspended at the request of the coastal State when the violation has occurred within its internal waters, territorial sea or exclusive economic zone. The evidence and records of the case, together with any bond or other financial security posted with the authorities of the port State, shall in that event be transmitted to the coastal State. Such transmittal shall preclude the continuation of proceedings in the port State.

Article 219
Measures relating to seaworthiness of vessels to avoid pollution

Subject to section 7, States which, upon request or on their own initiative, have ascertained that a vessel within one of their ports or at one of their off-shore terminals is in violation of applicable international rules and standards relating to seaworthiness of vessels and thereby threatens damage to the marine environment shall, as far as practicable, take administrative measures to prevent the vessel from sailing. Such States may permit the vessel to proceed only to the nearest appropriate repair yard and, upon removal of the causes of the violation, shall permit the vessel to continue immediately.

Article 220
Enforcement by coastal States

1. When a vessel is voluntarily within a port or at an off-shore terminal of a State, that State may, subject to section 7, institute proceedings in respect of any violation of its laws and regulations adopted in accordance with this Convention or applicable international rules and standards for the prevention, reduction and control of pollution from vessels when the violation has occurred within the territorial sea or the exclusive economic zone of that State.

2. Where there are clear grounds for believing that a vessel navigating in the territorial sea of a State has, during its passage therein, violated laws and regulations of that State adopted in accordance with this Convention or applicable international rules and standards for the prevention, reduction and control of pollution from vessels, that State, without prejudice to the application of the relevant provisions of Part II, section 3, may undertake physical inspection of the vessel relating to the violation and may, where the evidence so warrants, institute proceedings, including detention of the vessel, in accordance with its laws, subject to the provisions of section 7.

3. Where there are clear grounds for believing that a vessel navigating in the exclusive economic zone or the territorial sea of a State has, in the exclusive economic zone, committed a violation of applicable international rules and standards for the prevention, reduction and control of pollution from vessels or laws and regulations of that State conforming and giving effect to such rules and standards, that State may require the vessel to give information regarding its identity and port of registry, its last and its next port of call and other relevant information required to establish whether a violation has occurred.

4. States shall adopt laws and regulations and take other measures so that vessels flying their flag comply with requests for information pursuant to paragraph 3.

5. Where there are clear grounds for believing that a vessel navigating in the exclusive economic zone or the territorial sea of a State has, in the exclusive economic zone, committed a violation referred to in paragraph 3 resulting in a substantial discharge causing or threatening significant pollution of the marine environment, that State may undertake physical inspection of the vessel for matters relating to the violation if the vessel has refused to give information or if the information supplied by the vessel is manifestly at variance with the evident factual situation and if the circumstances of the case justify such inspection.

6. Where there is clear objective evidence that a vessel navigating in the exclusive economic zone or the territorial sea of a State has, in the exclusive economic zone, committed a violation referred to in paragraph 3 resulting in a discharge causing major damage or threat of major damage to the coastline or related interests of the coastal State, or to any resources of its territorial sea or exclusive economic zone, that State may, subject to section 7, provided that the evidence so warrants, institute proceedings, including detention of the vessel, in accordance with its laws.

7. Notwithstanding the provisions of paragraph 6, whenever appropriate procedures have been established, either through the competent international organization or as otherwise agreed, whereby compliance with requirements for bonding or other appropriate financial security has been assured, the coastal State if bound by such procedures shall allow the vessel to proceed.

8. The provisions of paragraphs 3, 4, 5, 6 and 7 also apply in respect of national laws and regulations adopted pursuant to article 211, paragraph 6.

Article 221
Measures to avoid pollution arising from maritime casualties

1. Nothing in this Part shall prejudice the right of States, pursuant to international law, both customary and conventional, to take and enforce measures beyond the territorial sea proportionate to the actual or threatened damage to protect their coastline or related interests, including fishing, from pollution or threat of pollution following upon a maritime casualty or acts relating to such a casualty, which may reasonably be expected to result in major harmful consequences.

2. For the purposes of this article, "maritime casualty" means a collision of vessels, stranding or other incident of navigation, or other occurrence on board a vessel or external to it resulting in material damage or imminent threat of material damage to a vessel or cargo.

Article 222
Enforcement with respect to pollution from or through the atmosphere

States shall enforce, within the air space under their sovereignty or with regard to vessels flying their flag or vessels or aircraft of their registry, their laws and regulations adopted in accordance with article 212, paragraph 1, and with other provisions of this Convention and shall adopt laws and regulations and take other measures necessary

to implement applicable international rules and standards established through competent international organizations or diplomatic conference to prevent, reduce and control pollution of the marine environment from or through the atmosphere, in conformity with all relevant international rules and standards concerning the safety of air navigation.

SECTION 7. SAFEGUARDS

Article 223
Measures to facilitate proceedings

In proceedings instituted pursuant to this Part, States shall take measures to facilitate the hearing of witnesses and the admission of evidence submitted by authorities of another State, or by the competent international organization, and shall facilitate the attendance at such proceedings of official representatives of the competent international organization, the flag State and any State affected by pollution arising out of any violation. The official representatives attending such proceedings shall have such rights and duties as may be provided under national laws and regulations or international law.

Article 224
Exercise of powers of enforcement

The powers of enforcement against foreign vessels under this Part may only be exercised by officials or by warships, military aircraft, or other ships or aircraft clearly marked and identifiable as being on government service and authorized to that effect.

Article 225
Duty to avoid adverse consequences in the exercise of the powers of enforcement

In the exercise under this Convention of their powers of enforcement against foreign vessels, States shall not endanger the safety of navigation or otherwise create any hazard to a vessel, or bring it to an unsafe port or anchorage, or expose the marine environment to an unreasonable risk.

Article 226
Investigation of foreign vessels

1. (a) States shall not delay a foreign vessel longer than is essential for purposes of the investigations provided for in articles 216, 218 and 220. Any physical inspection of a foreign vessel shall be limited to an examination of such certificates, records or other documents as the vessel is required to carry by generally accepted international rules and standards or of any similar documents which it is carrying; further physical inspection of the vessel may be undertaken only after such an examination and only when:

   (i) there are clear grounds for believing that the condition of the vessel or its equipment does not correspond substantially with the particulars of those documents;

   (ii) the contents of such documents are not sufficient to confirm or verify a suspected violation; or

   (iii) the vessel is not carrying valid certificates and records.

(b) If the investigation indicates a violation of applicable laws and regulations or international rules and standards for the protection and preservation of the marine environment, release shall be made promptly subject to reasonable procedures such as bonding or other appropriate financial security.

(c) Without prejudice to applicable international rules and standards relating to the seaworthiness of vessels, the release of a vessel may, whenever it would present an unreasonable threat of damage to the marine environment, be refused or made conditional upon proceeding to the nearest appropriate repair yard. Where release has been refused or made conditional, the flag State of the vessel must be promptly notified, and may seek release of the vessel in accordance with Part XV.

2. States shall co-operate to develop procedures for the avoidance of unnecessary physical inspection of vessels at sea.

Article 227
Non-discrimination with respect to foreign vessels

In exercising their rights and performing their duties under this Part, States shall not discriminate in form or in fact against vessels of any other State.

Article 228
Suspension and restrictions on institution of proceedings

1. Proceedings to impose penalties in respect of any violation of applicable laws and regulations or international rules and standards relating to the prevention, reduction and control of pollution from vessels committed by a foreign vessel beyond the territorial sea of the State instituting proceedings shall be suspended upon the taking of proceedings to impose penalties in respect of corresponding charges by the flag State within six months of the date on which proceedings were first instituted, unless those proceedings relate to a case of major damage to the coastal State or the flag State in question has repeatedly disregarded its obligation to enforce effectively the applicable international rules and standards in respect of violations committed by its vessels. The flag State shall in due course make available to the State previously instituting proceedings a full dossier of the case and the records of the proceedings, whenever the flag State has requested the suspension of proceedings in accordance with this article. When proceedings instituted by the flag State have been brought to a conclusion, the suspended proceedings shall be terminated. Upon payment of costs incurred in respect of such proceedings, any bond posted or other financial security provided in connection with the suspended proceedings shall be released by the coastal State.

2. Proceedings to impose penalties on foreign vessels shall not be instituted after the expiry of three years from the date on which the violation was committed, and shall not be taken by any State in the event of proceedings having been instituted by another State subject to the provisions set out in paragraph 1.

3. The provisions of this article are without prejudice to the right of the flag State to take any measures, including proceedings to impose penalties, according to its laws irrespective of prior proceedings by another State.

Article 229
Institution of civil proceedings

Nothing in this Convention affects the institution of civil proceedings in respect of any claim for loss or damage resulting from pollution of the marine environment.

Article 230
Monetary penalties and the observance of recognized rights of the accused

1. Monetary penalties only may be imposed with respect to violations of national laws and regulations or applicable international rules and standards for the prevention, reduction and control of pollution of the marine environment, committed by foreign vessels beyond the territorial sea.

2. Monetary penalties only may be imposed with respect to violations of national laws and regulations or applicable international rules and standards for the prevention, reduction and control of pollution of the marine

environment, committed by foreign vessels in the territorial sea, except in the case of a wilful and serious act of pollution in the territorial sea.

3. In the conduct of proceedings in respect of such violations committed by a foreign vessel which may result in the imposition of penalties, recognized rights of the accused shall be observed.

Article 231
Notification to the flag State and other States concerned

States shall promptly notify the flag State and any other State concerned of any measures taken pursuant to section 6 against foreign vessels, and shall submit to the flag State all official reports concerning such measures. However, with respect to violations committed in the territorial sea, the foregoing obligations of the coastal State apply only to such measures as are taken in proceedings. The diplomatic agents or consular officers and where possible the maritime authority of the flag State, shall be immediately informed of any such measures taken pursuant to section 6 against foreign vessels.

Article 232
Liability of States arising from enforcement measures

States shall be liable for damage or loss attributable to them arising from measures taken pursuant to section 6 when such measures are unlawful or exceed those reasonably required in the light of available information. States shall provide for recourse in their courts for actions in respect of such damage or loss.

Article 233
Safeguards with respect to straits used for international navigation

Nothing in sections 5, 6 and 7 affects the legal régime of straits used for international navigation. However, if a foreign ship other than those referred to in section 10 has committed a violation of the laws and regulations referred to in article 42, paragraph 1(a) and (b), causing or threatening major damage to the marine environment of the straits, the States bordering the straits may take appropriate enforcement measures and if so shall respect mutatis mutandis the provisions of this section.

SECTION 8. ICE-COVERED AREAS

Article 234
Ice-covered areas

Coastal States have the right to adopt and enforce non-discriminatory laws and regulations for the prevention, reduction and control of marine pollution from vessels in ice-covered areas within the limits of the exclusive economic zone, where particularly severe climatic conditions and the presence of ice covering such areas for most of the year create obstructions or exceptional hazards to navigation, and pollution of the marine environment could cause major harm to or irreversible disturbance of the ecological balance. Such laws and regulations shall have due regard to navigation and the protection and preservation of the marine environment based on the best available scientific evidence.

SECTION 9. RESPONSIBILITY AND LIABILITY

Article 235
Responsibility and liability

1. States are responsible for the fulfilment of their international obligations concerning the protection and preservation of the marine environment. They shall be liable in accordance with international law.

2. States shall ensure that recourse is available in accordance with their legal systems for prompt and adequate compensation or other relief in respect of damage caused by pollution of the marine environment by natural or juridical persons under their jurisdiction.

3. With the objective of assuring prompt and adequate compensation in respect of all damage caused by pollution of the marine environment, States shall co-operate in the implementation of existing international law and the further development of international law relating to responsibility and liability for the assessment of and compensation for damage and the settlement of related disputes, as well as, where appropriate, development of criteria and procedures for payment of adequate compensation, such as compulsory insurance or compensation funds.

SECTION 10. SOVEREIGN IMMUNITY

Article 236
Sovereign immunity

The provisions of this Convention regarding the protection and preservation of the marine environment do not apply to any warship, naval auxiliary, other vessels or aircraft owned or operated by a State and used, for the time being, only on government non-commercial service. However, each State shall ensure, by the adoption of appropriate measures not impairing operations or operational capabilities of such vessels or aircraft owned or operated by it, that such vessels or aircraft act in a manner consistent, so far as is reasonable and practicable, with this Convention.

SECTION 11. OBLIGATIONS UNDER OTHER CONVENTIONS ON THE PROTECTION AND PRESERVATION OF THE MARINE ENVIRONMENT

Article 237
Obligations under other conventions on the protection and preservation of the marine environment

1. The provisions of this Part are without prejudice to the specific obligations assumed by States under special conventions and agreements concluded previously which relate to the protection and preservation of the marine environment and to agreements which may be concluded in furtherance of the general principles set forth in this Convention.

2. Specific obligations assumed by States under special conventions, with respect to the protection and preservation of the marine environment, should be carried out in a manner consistent with the general principles and objectives of this Convention.

PART XIII

MARINE SCIENTIFIC RESEARCH

SECTION 1. GENERAL PROVISIONS

Article 238
Right to conduct marine scientific research

All States, irrespective of their geographical location, and competent international organizations have the right to conduct marine scientific research subject to the rights and duties of other States as provided for in this Convention.

Article 239
Promotion of marine scientific research

States and competent international organizations shall promote and facilitate the development and conduct of marine scientific research in accordance with this Convention.

Article 240
General principles for the conduct of marine scientific research

In the conduct of marine scientific research the following principles shall apply:

(a) marine scientific research shall be conducted exclusively for peaceful purposes;

(b) marine scientific research shall be conducted with appropriate scientific methods and means compatible with this Convention;

(c) marine scientific research shall not unjustifiably interfere with other legitimate uses of the sea compatible with this Convention and shall be duly respected in the course of such uses;

(d) marine scientific research shall be conducted in compliance with all relevant regulations adopted in conformity with this Convention including those for the protection and preservation of the marine environment.

Article 241
Non-recognition of marine scientific research activities as the legal basis for claims

Marine scientific research activities shall not constitute the legal basis for any claim to any part of the marine environment or its resources.

SECTION 2. INTERNATIONAL CO-OPERATION

Article 242
Promotion of international co-operation

1. States and competent international organizations shall, in accordance with the principle of respect for sovereignty and jurisdiction and on the basis of mutual benefit, promote international co-operation in marine scientific research for peaceful purposes.

2. In this context, without prejudice to the rights and duties of States under this Convention, a State, in the application of this Part, shall provide, as appropriate, other States with a reasonable opportunity to obtain from it, or with its co-operation, information necessary to prevent and control damage to the health and safety of persons and to the marine environment.

Article 243
Creation of favourable conditions

States and competent international organizations shall co-operate, through the conclusion of bilateral end multilateral agreements, to create favourable conditions for the conduct of marine scientific research in the marine environment and to integrate the efforts of scientists in studying the essence of phenomena and processes occurring in the marine environment and the interrelations between them.

Article 244
Publication and dissemination of information and knowledge

1. States and competent international organizations shall, in accordance with this Convention, make available by publication and dissemination through appropriate channels information on proposed major programmes and their objectives as well as knowledge resulting from marine scientific research.

2. For this purpose, States, both individually and in co-operation with other States and with competent international organizations, shall actively promote the flow of scientific data and information and the transfer of knowledge resulting from marine scientific research, especially to developing States, as well as the strengthening of the autonomous marine scientific research capabilities of developing States through, inter alia, programmes to provide adequate education and training of their technical and scientific personnel.

SECTION 3. CONDUCT AND PROMOTION OF MARINE SCIENTIFIC RESEARCH

Article 245
Marine scientific research in the territorial sea

Coastal States, in the exercise of their sovereignty, have the exclusive right to regulate, authorize and conduct marine scientific research in their territorial sea. Marine scientific research therein shall be conducted only with the express consent of and under the conditions set forth by the coastal State.

Article 246
Marine scientific research in the exclusive economic zone and on the continental shelf

1. Coastal States, in the exercise of their jurisdiction, have the right to regulate, authorize and conduct marine scientific research in their exclusive economic zone and on their continental shelf in accordance with the relevant provisions of this Convention.

2. Marine scientific research in the exclusive economic zone and on the continental shelf shall be conducted with the consent of the coastal State.

3. Coastal States shall, in normal circumstances, grant their consent for marine scientific research projects by other States or competent international organizations in their exclusive economic zone or on their continental shelf to be carried out in accordance with this Convention exclusively for peaceful purposes and in order to increase scientific knowledge of the marine environment for the benefit of all mankind. To this end, coastal States shall establish rules and procedures ensuring that such consent will not be delayed or denied unreasonably.

4. For the purposes of applying paragraph 3, normal circumstances may exist in spite of the absence of diplomatic relations between the coastal State and the researching State.

5. Coastal States may however in their discretion withhold their consent to the conduct of a marine scientific research project of another State or competent international organization in the exclusive economic zone or on the continental shelf of the coastal State if that project:

(a) is of direct significance for the exploration and exploitation of natural resources, whether living or non-living;

(b) involves drilling into the continental shelf, the use of explosives or the introduction of harmful substances into the marine environment;

(c) involves the construction, operation or use of artificial islands, installations and structures referred to in articles 60 and 80;

(d) contains information communicated pursuant to article 248 regarding the nature and objectives of the project which is inaccurate or if the researching State or competent international organization has outstanding obligations to the coastal State from a prior research project.

6. Notwithstanding the provisions of paragraph 5, coastal States may not exercise their discretion to withhold consent under subparagraph (a) of that paragraph in respect of marine scientific research projects to be undertaken in accordance with the provisions of this Part on the continental shelf, beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured, outside those specific areas which coastal States may at any time publicly designate as areas in which exploitation or detailed exploratory operations focused on those areas are occurring or will occur within a reasonable period of time. Coastal States shall give reasonable notice of the designation of such areas, as well as any modifications thereto, but shall not be obliged to give details of the operations therein.

7. The provisions of paragraph 6 are without prejudice to the rights of coastal States over the continental shelf as established in article 77.

8. Marine scientific research activities referred to in this article shall not unjustifiably interfere with activities undertaken by coastal States in the exercise of their sovereign rights and jurisdiction provided for in this Convention.

Article 247
Marine scientific research projects undertaken by or under the auspices of international organizations

A coastal State which is a member of or has a bilateral agreement with an international organization, and in whose exclusive economic zone or on whose continental shelf that organization wants to carry out a marine scientific research project, directly or under its auspices, shall be deemed to have authorized the project to be carried out in conformity with the agreed specifications if that State approved the detailed project when the decision was made by the organization for the undertaking of the project, or is willing to participate in it, and has not expressed any objection within four months of notification of the project by the organization to the coastal State.

Article 248
Duty to provide information to the coastal State

States and competent international organizations which intend to undertake marine scientific research in the exclusive economic zone or on the continental shelf of a coastal State shall, not less than six months in advance of the expected starting date of the marine scientific research project, provide that State with a full description of:

(a) the nature and objectives of the project;

(b) the method and means to be used, including name, tonnage, type and class of vessels and a description of scientific equipment;

(c) the precise geographical areas in which the project is to be conducted;

(d) the expected date of first appearance and final departure of the research vessels, or deployment of the equipment and its removal, as appropriate;

(e) the name of the sponsoring institution, its director, and the person in charge of the project; and

(f) the extent to which it is considered that the coastal State should be able to participate or to be represented in the project.

Article 249
Duty to comply with certain conditions

1. States and competent international organizations when undertaking marine scientific research in the exclusive economic zone or on the continental shelf of a coastal State shall comply with the following conditions:

(a) ensure the right of the coastal State, if it so desires, to participate or be represented in the marine scientific research project, especially on board research vessels and other craft or scientific research installations, when practicable, without payment of any remuneration to the scientists of the coastal State and without obligation to contribute towards the costs of the project;

(b) provide the coastal State, at its request, with preliminary reports, as soon as practicable, and with the final results and conclusions after the completion of the research;

(c) undertake to provide access for the coastal State, at its request, to all data and samples derived from the marine scientific research project and likewise to furnish it with data which may be copied and samples which may be divided without detriment to their scientific value;

(d) if requested, provide the coastal State with an assessment of such data, samples and research results or provide assistance in their assessment or interpretation;

(e) ensure, subject to paragraph 2, that the research results are made internationally available through appropriate national or international channels, as soon as practicable;

(f) inform the coastal State immediately of any major change in the research programme;

(g) unless otherwise agreed, remove the scientific research installations or equipment once the research is completed.

2. This article is without prejudice to the conditions established by the laws and regulations of the coastal State for the exercise of its discretion to grant or withhold consent pursuant to article 246, paragraph 5, including requiring prior agreement for making internationally available the research results of a project of direct significance for the exploration and exploitation of natural resources.

Article 250
Communications concerning marine scientific research projects

Communications concerning the marine scientific research projects shall be made through appropriate official channels, unless otherwise agreed.

Article 251
General criteria and guidelines

States shall seek to promote through competent international organizations the establishment of general criteria and guidelines to assist States in ascertaining the nature and implications of marine scientific research.

Article 252
Implied consent

States or competent international organizations may proceed with a marine scientific research project six months after the date upon which the information required pursuant to article 248 was provided to the coastal State unless within four months of the receipt of the communication containing such information the coastal State has informed the State or organization conducting the research that:

(a) it has withheld its consent under the provisions of article 246; or

(b) the information given by that State or competent international organization regarding the nature or objectives of the project does not conform to the manifestly evident facts; or

(c) it requires supplementary information relevant to conditions and the information provided for under articles 248 and 249; or

(d) outstanding obligations exist with respect to a previous marine scientific research project carried out by that State or organization, with regard to conditions established in article 249.

Article 253
Suspension or cessation of marine scientific research activities

1. A coastal State shall have the right to require the suspension of any marine scientific research activities in progress within its exclusive economic zone or on its continental shelf if:

(a) the research activities are not being conducted in accordance with the information communicated as provided under article 248 upon which the consent of the coastal State was based; or

(b) the State or competent international organization conducting the research activities fails to comply with the provisions of article 249 concerning the rights of the coastal State with respect to the marine scientific research project.

2. A coastal State shall have the right to require the cessation of any marine scientific research activities in case of any non-compliance with the provisions of article 248 which amounts to a major change in the research project or the research activities.

3. A coastal State may also require cessation of marine scientific research activities if any of the situations contemplated in paragraph 1 are not rectified within a reasonable period of time.

4. Following notification by the coastal State of its decision to order suspension or cessation, States or competent international organizations authorized to conduct marine scientific research activities shall terminate the research activities that are the subject of such a notification.

5. An order of suspension under paragraph 1 shall be lifted by the coastal State and the marine scientific research activities allowed to continue once the researching State or competent international organization has complied with the conditions required under articles 248 and 249.

Article 254
Rights of neighbouring land-locked and geographically disadvantaged States

1. States and competent international organizations which have submitted to a coastal State a project to undertake marine scientific research referred to in article 246, paragraph 3, shall give notice to the neighbouring land-locked and geographically disadvantaged States of the proposed research project, and shall notify the coastal State thereof.

2. After the consent has been given for the proposed marine scientific research project by the coastal State concerned, in accordance with article 246 and other relevant provisions of this Convention, States and competent international organizations undertaking such a project shall provide to the neighbouring land-locked and geographically disadvantaged States, at their request and when appropriate, relevant information as specified in article 248 and article 249, paragraph 1(f).

3. The neighbouring land-locked and geographically disadvantaged States referred to above shall, at their request, be given the opportunity to participate, whenever feasible, in the proposed marine scientific research project through qualified experts appointed by them and not objected to by the coastal State, in accordance with the conditions agreed for the project, in conformity with the provisions of this Convention, between the coastal State concerned and the State or competent international organizations conducting the marine scientific research.

4. States and competent international organizations referred to in paragraph 1 shall provide to the above-mentioned land-locked and geographically disadvantaged States, at their request, the information and assistance specified in article 249, paragraph 1(d), subject to the provisions of article 249, paragraph 2.

Article 255
Measures to facilitate marine scientific research and assist research vessels

States shall endeavour to adopt reasonable rules, regulations and procedures to promote and facilitate marine scientific research conducted in accordance with this Convention beyond their territorial sea and, as appropriate, to facilitate, subject to the provisions of their laws and regulations, access to their harbours and promote assistance for marine scientific research vessels which comply with the relevant provisions of this Part.

Article 256
Marine scientific research in the Area

All States, irrespective of their geographical location, and competent international organizations have the right, in conformity with the provisions of Part XI, to conduct marine scientific research in the Area.

Article 257
Marine scientific research in the water column beyond the exclusive economic zone

All States, irrespective of their geographical location, and competent international organizations have the right, in conformity with this Convention, to conduct marine scientific research in the water column beyond the limits of the exclusive economic zone.

SECTION 4. SCIENTIFIC RESEARCH INSTALLATIONS OR EQUIPMENT IN THE MARINE ENVIRONMENT

Article 258
Deployment and use

The deployment and use of any type of scientific, research installations or equipment in any area of the marine environment shall be subject to the same conditions as are prescribed in this Convention for the conduct of marine scientific research in any such area.

Article 259
Legal status

The installations or equipment referred to in this section do not possess the status of islands. They have no territorial sea of their own, and their presence does not affect the delimitation of the territorial sea, the exclusive economic zone or the continental shelf.

Article 260
Safety zones

Safety zones of a reasonable breadth not exceeding a distance of 500 metres may be created around scientific research installations in accordance with the relevant provisions of this Convention. All States shall ensure that such safety zones are respected by their vessels.

Article 261
Non-interference with shipping routes

The deployment and use of any type of scientific research installations or equipment shall not constitute an obstacle to established international shipping routes.

Article 262
Identification markings and warning signals

Installations or equipment referred to in this section shall bear identification markings indicating the State of registry or the international organization to which they belong and shall have adequate internationally agreed warning signals to ensure safety at sea and the safety of air navigation, taking into account rules and standards established by competent international organizations.

SECTION 5. RESPONSIBILITY AND LIABILITY

Article 263
Responsibility and liability

1. States and competent international organizations shall be responsible for ensuring that marine scientific research, whether undertaken by them or on their behalf, is conducted in accordance with this Convention.

2. States and competent international organizations shall be responsible and liable for the measures they take in contravention of this Convention in respect of marine scientific research conducted by other States, their natural or juridical persons or by competent international organizations, and shall provide compensation for damage resulting from such measures.

3. States and competent international organizations shall be responsible and liable pursuant to article 235 for damage caused by pollution of the marine environment arising out of marine scientific research undertaken by them or on their behalf.

SECTION 6. SETTLEMENT OF DISPUTES AND INTERIM MEASURES

Article 264
Settlement of disputes

Disputes concerning the interpretation or application of the provisions of this Convention with regard to marine scientific research shall be settled in accordance with Part XV, sections 2 and 3.

Article 265
Interim measures

Pending settlement of a dispute in accordance with Part XV, sections 2 and 3, the State or competent international organization authorized to conduct a marine scientific research project shall not allow research activities to commence or continue without the express consent of the coastal State concerned.

PART XIV

DEVELOPMENT AND TRANSFER OF MARINE TECHNOLOGY

SECTION 1. GENERAL PROVISIONS

Article 266
Promotion of the development and transfer of marine technology

1. States, directly or through competent international organizations, shall co-operate in accordance with their capabilities to promote actively the development and transfer of marine science and marine technology on fair and reasonable terms and conditions.

2. States shall promote the development of the marine scientific and technological capacity of States which may need and request technical assistance in this field, particularly developing States, including land-locked and geographically disadvantaged States, with regard to the exploration, exploitation, conservation and management of marine resources, the protection and preservation of the marine environment, marine scientific research and other activities in the marine environment compatible with this Convention, with a view to accelerating the social and economic development of the developing States.

3. States shall endeavour to foster favourable economic and legal conditions for the transfer of marine technology for the benefit of all parties, concerned on an equitable basis.

Article 267
Protection of legitimate interests

States, in promoting co-operation pursuant to article 266, shall have due regard for all legitimate interests including, inter alia, the rights and duties of holders, suppliers and recipients of marine technology.

Article 268
Basic objectives

States, directly or through competent international organizations, shall promote:

(a) the acquisition, evaluation and dissemination of marine technological knowledge and facilitate access to such information and data;

(b) the development of appropriate marine technology;

(c) the development of the necessary technological infrastructure to facilitate the transfer of marine technology;

(d) the development of human resources through training and education of nationals of developing States and countries and especially the nationals of the least developed among them;

(e) international co-operation at all levels, particularly at the regional, subregional and bilateral levels.

Article 269
Measures to achieve the basic objectives

In order to achieve the objectives referred to in article 268, States, directly or through competent international organizations, shall endeavour, inter alia, to:

(a) establish programmes of technical co-operation for the effective transfer of all kinds of marine technology to States which may need and request technical assistance in this field, particularly the developing land-locked and geographically disadvantaged States, as well as other developing States which have not been able either to establish or develop their own technological capacity in marine science and in the exploration and exploitation of marine resources or to develop the infrastructure of such technology;

(b) promote favourable conditions for the conclusion of agreements, contracts and other similar arrangements, under equitable and reasonable conditions;

(c) hold conferences, seminars and symposia on scientific and technological subjects, in particular on policies and methods for the transfer of marine technology;

(d) promote the exchange of scientists and of technological and other experts;

(e) undertake projects and promote joint ventures and other forms of bilateral and multilateral co-operation.

SECTION 2. INTERNATIONAL CO-OPERATION

Article 270
Ways and means of international co-operation

International co-operation for the development and transfer of marine technology shall be carried out, where feasible and appropriate, through existing bilateral, regional or multilateral programmes, and also through expanded and new programmes in order to facilitate marine scientific research, the transfer of marine technology, particularly in new fields, and appropriate international funding for ocean research and development.

Article 271
Guidelines, criteria and standards

States, directly or through competent international organizations, shall promote the establishment of generally accepted guidelines, criteria and standards for the transfer of marine technology on a bilateral basis or within the framework of international organizations and other fora, taking into account, in particular, the interests and needs of developing States.

Article 272
Co-ordination of international programmes

In the field of transfer of marine technology, States shall endeavour to ensure that competent international organizations co-ordinate their activities, including any regional or global programmes, taking into account the interests and needs of developing States, particularly land-locked and geographically disadvantaged States.

Article 273
Co-operation with international organizations and the Authority

States shall co-operate actively with competent international organizations and the Authority to encourage and facilitate the transfer to developing States, their nationals and the Enterprise of skills and marine technology with regard to activities in the Area.

Article 274
Objectives of the Authority

Subject to all legitimate interests including, inter alia, the rights and duties of holders, suppliers and recipients of technology, the Authority, with regard to activities in the Area, shall ensure that:

(a) on the basis of the principle of equitable geographical distribution, nationals of developing States, whether coastal, land-locked or geographically disadvantaged, shall be taken on for the purposes of training as members of the managerial, research and technical staff constituted for its undertakings;

(b) the technical documentation on the relevant equipment, machinery, devices and processes is made available to all States, in particular developing States which may need and request technical assistance in this field;

(c) adequate provision is made by the Authority to facilitate the acquisition of technical assistance in the field of marine technology by States which may need and request it, in particular developing States, and the acquisition by their nationals of the necessary skills and know-how, including professional training;

(d) States which may need and request technical assistance in this field, in particular developing States, are assisted in the acquisition of necessary equipment, processes, plant and other technical know-how through any financial arrangements provided for in this Convention.

SECTION 3. NATIONAL AND REGIONAL MARINE SCIENTIFIC AND TECHNOLOGICAL CENTRES

Article 275
Establishment of national centres

1. States, directly or through competent international organizations and the Authority, shall promote the establishment, particularly in developing coastal States, of national marine scientific and technological research centres and the strengthening of existing national centres, in order to stimulate and advance the conduct of marine scientific research by developing coastal States and to enhance their national capabilities to utilize and preserve their marine resources for their economic benefit.

2. States, through competent international organizations and the Authority, shall give adequate support to facilitate the establishment and strengthening of such national centres so as to provide for advanced training facilities and necessary equipment, skills and know-how as well as technical experts to such States which may need and request such assistance.

Article 276
Establishment of regional centres

1. States, in co-ordination with the competent international organizations, the Authority and national marine scientific and technological research institutions, shall promote the establishment of regional marine scientific and technological research centres, particularly in developing States, in order to stimulate and advance the conduct of marine scientific research by developing States and foster the transfer of marine technology.

2. All States of a region shall co-operate with the regional centres therein to ensure the more effective achievement of their objectives.

Article 277
Functions of regional centres

The functions of such regional centres shall include, inter alia:

(a) training and educational programmes at all levels on various aspects of marine scientific and technological research, particularly marine biology, including conservation and management of living resources, oceanography, hydrography, engineering, geological exploration of the sea-bed, mining and desalination technologies;

(b) management studies;

(c) study programmes related to the protection and preservation of the marine environment and the prevention, reduction and control of pollution;

(d) organization of regional conferences, seminars and symposia;

(e) acquisition and processing of marine scientific and technological data and information;

(f) prompt dissemination of results of marine scientific and technological research in readily available publications;

(g) publicizing national policies with regard to the transfer of marine technology and systematic comparative study of those policies;

(h) compilation and systematization of information on the marketing of technology and on contracts and other arrangements concerning patents;

(i) technical co-operation with other States of the region.

SECTION 4. CO-OPERATION AMONG INTERNATIONAL ORGANIZATIONS

Article 278
Co-operation among international organizations

The competent international organizations referred to in this Part and in Part XIII shall take all appropriate measures to ensure, either directly or in close co-operation among themselves, the effective discharge of their functions and responsibilities under this Part.

PART XV

SETTLEMENT OF DISPUTES

SECTION 1. GENERAL PROVISIONS

Article 279
Obligation to settle disputes by peaceful means

States Parties shall settle any dispute between them concerning the interpretation or application of this Convention by peaceful means in accordance with Article 2, paragraph 3, of the Charter of the United Nations and, to this end, shall seek a solution by the means indicated in Article 33, paragraph 1, of the Charter.

Article 280
Settlement of disputes by any peaceful means chosen by the parties

Nothing in this Part impairs the right of any States Parties to agree at any time to settle a dispute between them concerning the interpretation or application of this Convention by any peaceful means of their own choice.

Article 281
Procedure where no settlement has been reached by the parties

1. If the States Parties which are parties to a dispute concerning the interpretation or application of this Convention have agreed to seek settlement of the dispute by a peaceful means of their own choice, the procedures provided for in this Part apply only where no settlement has been reached by recourse to such means and the agreement between the parties does not exclude any further procedure.

2. If the parties have also agreed on a time-limit, paragraph 1 applies only upon the expiration of that time-limit.

Article 282
Obligations under general, regional or bilateral agreements

If the States Parties which are parties to a dispute concerning the interpretation or application of this Convention have agreed, through a general, regional or bilateral agreement or otherwise, that such dispute shall, at the request of any party to the dispute, be submitted to a procedure that entails a binding decision, that procedure shall apply in lieu of the procedures provided for in this Part, unless the parties to the dispute otherwise agree.

Article 283
Obligation to exchange views

1. When a dispute arises between States Parties concerning the interpretation or application of this Convention, the parties to the dispute shall proceed expeditiously to an exchange of views regarding its settlement by negotiation or other peaceful means.

2. The parties shall also proceed expeditiously to an exchange of views where a procedure for the settlement of such a dispute has been terminated without a settlement or where a settlement has been reached and the circumstances require consultation regarding the manner of implementing the settlement.

Article 284
Conciliation

1. A State Party which is a party to a dispute concerning the interpretation or application of this Convention may invite the other party or parties to submit the dispute to conciliation in accordance with the procedure under Annex V, section 1, or another conciliation procedure.

2. If the invitation is accepted and if the parties agree upon the conciliation procedure to be applied, any party may submit the dispute to that procedure.

3. If the invitation is not accepted or the parties do not agree upon the procedure, the conciliation proceedings shall be deemed to be terminated.

4. Unless the parties otherwise agree, when a dispute has been submitted to conciliation, the proceedings may be terminated only in accordance with the agreed conciliation procedure.

Article 285
Application of this section to disputes submitted pursuant to Part XI

This section applies to any dispute which pursuant to Part XI, section 5, is to be settled in accordance with procedures provided for in this part. If an entity other than a State Party is a party to such a dispute, this section applies mutatis mutandis.

SECTION 2. COMPULSORY PROCEDURES ENTAILING BINDING DECISIONS

Article 286
Application of procedures under this section

Subject to section 3, any dispute concerning the interpretation or application of this Convention shall, where no settlement has been reached by recourse to section 1, be submitted at the request of any party to the dispute to the court or tribunal having jurisdiction under this section.

Article 287
Choice of procedure

1. When signing, ratifying or acceding to this Convention or at any time thereafter, a State shall be free to choose, by means of a written declaration, one or more of the following means for the settlement of disputes concerning the interpretation or application of this Convention:

(a) the International Tribunal for the Law of the Sea established in accordance with Annex VI;

(b) the International Court of Justice;

(c) an arbitral tribunal constituted in accordance with Annex VII;

(d) a special arbitral tribunal constituted in accordance with Annex VIII for one or more of the categories of disputes specified therein.

2. A declaration made under paragraph 1 shall not affect or be affected by the obligation of a State Party to accept the jurisdiction of the Sea-Bed Disputes Chamber of the International Tribunal for the Law of the Sea to the extent and in the manner provided for in Part XI, section 5.

3. A State Party, which is a party to a dispute not covered by a declaration in force, shall be deemed to have accepted arbitration in accordance with Annex VII.

4. If the parties to a dispute have accepted the same procedure for the settlement of the dispute, it may be submitted only to that procedure, unless the parties otherwise agree.

5. If the parties to a dispute have not accepted the same procedure for the settlement of the dispute, it may be submitted only to arbitration in accordance with Annex VII, unless the parties otherwise agree.

6. A declaration made under paragraph 1 shall remain in force until three months after notice of revocation has been deposited with the Secretary-General of the United Nations.

7. A new declaration, a notice of revocation or the expiry of a declaration does not in any way affect proceedings pending before a court or tribunal having jurisdiction under this article, unless the parties otherwise agree.

8. Declarations and notices referred to in this article shall be deposited with the Secretary-General of the United Nations, who shall transmit copies thereof to the States Parties.

Article 288
Jurisdiction

1. A court or tribunal referred to in article 287 shall have jurisdiction over any dispute concerning the interpretation or application of this Convention which is submitted to it in accordance with this Part.

2. A court or tribunal referred to in article 287 shall also have jurisdiction over any dispute concerning the interpretation or application of an international agreement related to the purposes of this Convention, which is submitted to it in accordance with the agreement.

3. The Sea-Bed Disputes Chamber of the International Tribunal for the Law of the Sea established in accordance with Annex VI, and any other chamber or arbitral tribunal referred to in Part XI, section 5, shall have jurisdiction in any matter which is submitted to it in accordance therewith.

4. In the event of a dispute as to whether a court or tribunal has jurisdiction, the matter shall be settled by decision of that court or tribunal.

Article 289
Experts

In any dispute involving scientific or technical matters, a court or tribunal exercising jurisdiction under this section may, at the request of a party or proprio motu, select in consultation with the parties no fewer than two scientific or technical experts chosen preferably from the relevant list prepared in accordance with Annex VIII, article 2, to sit with the court or tribunal but without the right to vote.

Article 290
Provisional measures

1. If a dispute has been duly submitted to a court or tribunal which considers that prima facie it has jurisdiction under this Part or Part XI, section 5, the court or tribunal may prescribe any provisional measures which it considers appropriate under the circumstances to preserve the respective rights of the parties to the dispute or to prevent serious harm to the marine environment, pending the final decision.

2. Provisional measures may be modified or revoked as soon as the circumstances justifying them have changed or ceased to exist.

3. Provisional measures may be prescribed, modified or revoked under this article only at the request of a party to the dispute and after the parties have been given an opportunity to be heard.

4. The court or tribunal shall forthwith give notice to the parties to the dispute, and to such other States Parties as it considers appropriate, of the prescription, modification or revocation of provisional measures.

5. Pending the constitution of an arbitral tribunal to which a dispute is being submitted under this section, any court or tribunal agreed upon by the parties or, failing such agreement within two weeks from the date of the request for provisional measures, the International Tribunal for the Law of the Sea or, with respect to activities in the Area, the Sea-Bed Disputes Chamber, may prescribe, modify or revoke provisional measures in accordance with this article if it considers that prima facie the tribunal which is to be constituted would have jurisdiction and that the urgency of the situation so requires. Once constituted, the tribunal to which the dispute has been submitted may modify, revoke or affirm those provisional measures, acting in conformity with paragraphs 1 to 4.

6. The parties to the dispute shall comply promptly with any provisional measures prescribed under this article.

Article 291
Access

1. All the dispute settlement procedures specified in this Part shall be open to States Parties.

2. The dispute settlement procedures specified in this Part shall be open to entities other than States Parties only as specifically provided for in this Convention.

Article 292
Prompt release of vessels and crews

1. Where the authorities of a State Party have detained a vessel flying the flag of another State Party and it is alleged that the detaining State has not complied with the provisions of this Convention for the prompt release of the vessel or its crew upon the posting of a reasonable bond or other financial security, the question of release from detention may be submitted to any court or tribunal agreed upon by the parties or, failing such agreement within 10 days from the time of detention, to a court or tribunal accepted by the detaining State under article 287 or to the International Tribunal for the Law of the Sea, unless the parties otherwise agree.

2. The application for release may be made only by or on behalf of the flag State of the vessel.

3. The court or tribunal shall deal without delay with the application for release and shall deal only with the question of release, without prejudice to the merits of any case before the appropriate domestic forum against the vessel, its owner or its crew. The authorities of the detaining State remain competent to release the vessel or its crew at any time.

4. Upon the posting of the bond or other financial security determined by the court or tribunal, the authorities of the detaining State shall comply promptly with the decision of the court or tribunal concerning the release of the vessel or its crew.

Article 293
Applicable law

1. A court or tribunal having jurisdiction under this section shall apply this Convention and other rules of international law not incompatible with this Convention.

2. Paragraph 1 does not prejudice the power of the court or tribunal having jurisdiction under this section to decide a case ex aequo et bono, if the parties so agree.

Article 294
Preliminary proceedings

1. A court or tribunal provided for in article 287 to which an application is made in respect of a dispute referred to in article 297 shall determine at the request of a party, or may determine proprio motu, whether the claim constitutes an abuse of legal process or whether prima facie it is well founded. If the court or tribunal determines that the claim constitutes an abuse of legal process or is prima facie unfounded, it shall take no further action in the case.

2. Upon receipt of the application, the court or tribunal shall immediately notify the other party or parties of the application, and shall fix a reasonable time-limit within which they may request it to make a determination in accordance with paragraph 1.

3. Nothing in this article affects the right of any party to a dispute to make preliminary objections in accordance with the applicable rules of procedure.

Article 295
Exhaustion of local remedies

Any dispute between States Parties concerning the interpretation or application of this Convention may be submitted to the procedures provided for in this section only after local remedies have been exhausted where this is required by international law.

Article 296
Finality and binding force of decisions

1. Any decision rendered by a court or tribunal having jurisdiction under this section shall be final and shall be complied with by all the parties to the dispute.

2. Any such decision shall have no binding force except between the parties and in respect of that particular dispute.

SECTION 3. LIMITATIONS AND EXCEPTIONS TO APPLICABILITY OF SECTION 2

Article 297
Limitations on applicability of section 2

1. Disputes concerning the interpretation or application of this Convention with regard to the exercise by a coastal State of its sovereign rights or jurisdiction provided for in this Convention shall be subject to the procedures provided for in section 2 in the following cases:

(a) when it is alleged that a coastal State has acted in contravention of the provisions of this Convention in regard to the freedoms and rights of navigation, overflight or the laying of submarine cables and pipelines, or in regard to other internationally lawful uses of the sea specified in article 58;

(b) when it is alleged that a State in exercising the aforementioned freedoms, rights or uses has acted in contravention of this Convention or of laws or regulations adopted by the coastal State in conformity with this Convention and other rules of international law not incompatible with this Convention; or

(c) when it is alleged that a coastal State has acted in contravention of specified international rules and standards for the protection and preservation of the marine environment which are applicable to the coastal

State and which have been established by this Convention or through a competent international organization or diplomatic conference in accordance with this Convention.

2. (a) Disputes concerning the interpretation or application of the provisions of this Convention with regard to marine scientific research shall be settled in accordance with section 2, except that the coastal State shall not be obliged to accept the submission to such settlement of any dispute arising out of:

(i) the exercise by the coastal State of a right or discretion in accordance with article 246; or

(ii) a decision by the coastal State to order suspension or cessation of a research project in accordance with article 253.

(b) A dispute arising from an allegation by the researching State that with respect to a specific project the coastal State is not exercising its rights under articles 246 and 253 in a manner compatible with this Convention shall be submitted, at the request of either party, to conciliation under Annex V, section 2, provided that the conciliation commission shall not call in question the exercise by the coastal State of its discretion to designate specific areas as referred to in article 246, paragraph 6, or of its discretion to withhold consent in accordance with article 246, paragraph 5.

3. (a) Disputes concerning the interpretation or application of the provisions of this Convention with regard to fisheries shall be settled in accordance with section 2, except that the coastal State shall not be obliged to accept the submission to such settlement of any dispute relating to its sovereign rights with respect to the living resources in the exclusive economic zone or their exercise, including its discretionary powers for determining the allowable catch, its harvesting capacity, the allocation of surpluses to other States and the terms and conditions established in its conservation and management laws and regulations.

(b) Where no settlement has been reached by recourse to section 1 of this Part, a dispute shall be submitted to conciliation under Annex V, section 2, at the request of any party to the dispute, when it is alleged that:

(i) a coastal State has manifestly failed to comply with its obligations to ensure through proper conservation and management measures that the maintenance of the living resources in the exclusive economic zone is not seriously endangered;

(ii) a coastal State has arbitrarily refused to determine, at the request of another State, the allowable catch and its capacity to harvest living resources with respect to stocks which that other State is interested in fishing; or

(iii) a coastal State has arbitrarily refused to allocate to any State, under articles 62, 69 and 70 and under the terms and conditions established by the coastal State consistent with this Convention, the whole or part of the surplus it has declared to exist.

(c) In no case shall the conciliation commission substitute its discretion for that of the coastal State.

(d) The report of the conciliation commission shall be communicated to the appropriate international organizations.

(e) In negotiating agreements pursuant to articles 69 and 70, States Parties, unless they otherwise agree, shall include a clause on measures which they shall take in order to minimize the possibility of a disagreement concerning the interpretation or application of the agreement, and on how they should proceed if a disagreement nevertheless arises.

Article 298
Optional exceptions to applicability of section 2

1. When signing, ratifying or acceding to this Convention or at any time thereafter, a State may, without prejudice to the obligations arising under section 1, declare in writing that it does not accept any one or more of the procedures provided for in section 2 with respect to one or more of the following categories of disputes:

(a) (i) disputes concerning the interpretation or application of articles 15, 74 and 83 relating to sea boundary delimitations, or those involving historic bays or titles, provided that a State having made such a declaration shall, when such a dispute arises subsequent to the entry into force of this Convention and where no agreement within a reasonable period of time is reached in negotiations between the parties, at the request of any party to the dispute, accept submission of the matter to conciliation under Annex V, section 2; and provided further that any dispute that necessarily involves the concurrent consideration of any unsettled dispute concerning sovereignty or other rights over continental or insular land territory shall be excluded from such submission;

(ii) after the conciliation commission has presented its report, which shall state the reasons on which it is based, the parties shall negotiate an agreement on the basis of that report; if these negotiations do not result in an agreement, the parties shall, by mutual consent, submit the question to one of the procedures provided for in section 2, unless the parties otherwise agree;

(iii) this subparagraph does not apply to any sea boundary dispute finally settled by an arrangement between the parties, or to any such dispute which is to be settled in accordance with a bilateral or multilateral agreement binding upon those parties;

(b) disputes concerning military activities, including military activities by government vessels and aircraft engaged in non-commercial service, and disputes concerning law enforcement activities in regard to the exercise of sovereign rights or jurisdiction excluded from the jurisdiction of a court or tribunal under article 297, paragraph 2 or 3;

(c) disputes in respect of which the Security Council of the United Nations is exercising the functions assigned to it by the Charter of the United Nations, unless the Security Council decides to remove the matter from its agenda or calls upon the parties to settle it by the means provided for in this Convention.

2. A State Party which has made a declaration under paragraph 1 may at any time withdraw it, or agree to submit a dispute excluded by such declaration to any procedure specified in this Convention.

3. A State Party which has made a declaration under paragraph 1 shall not be entitled to submit any dispute falling within the excepted category of disputes to any procedure in this Convention as against another State Party, without the consent of that party.

4. If one of the States Parties has made a declaration under paragraph 1(a), any other State Party may submit any dispute falling within an excepted category against the declarant party to the procedure specified in such declaration.

5. A new declaration, or the withdrawal of a declaration, does not in any way affect proceedings pending before a court or tribunal in accordance with this article, unless the parties otherwise agree.

6. Declarations and notices of withdrawal of declarations under this article shall be deposited with the Secretary-General of the United Nations, who shall transmit copies thereof to the States Parties.

Article 299
Right of the parties to agree upon a procedure

1. A dispute excluded under article 297 or excepted by a declaration made under article 298 from the dispute settlement procedures provided for in section 2 may be submitted to such procedures only by agreement of the parties to the dispute.

2. Nothing in this section impairs the right of the parties to the dispute to agree to some other procedure for the settlement of such dispute or to reach an amicable settlement.

PART XVI

GENERAL PROVISIONS

Article 300
Good faith and abuse of rights

States Parties shall fulfill in good faith the obligations assumed under this Convention and shall exercise the rights, jurisdiction and freedoms recognized in this Convention in a manner which would not constitute an abuse of right.

Article 301
Peaceful uses of the seas

In exercising their rights and performing their duties under this Convention, States Parties shall refrain from any threat or use of force against the territorial integrity or political independence of any State, or in any other manner inconsistent with the principles of international law embodied in the Charter of the United Nations.

Article 302
Disclosure of information

Without prejudice to the right of a State Party to resort to the procedures for the settlement of disputes provided for in this Convention, nothing in this Convention shall be deemed to require a State Party, in the fulfilment of its obligations under this Convention, to supply information the disclosure of which is contrary to the essential interests of its security.

Article 303
Archaeological and historical objects found at sea

1. States have the duty to protect objects of an archaeological and historical nature found at sea and shall co-operate for this purpose.

2. In order to control traffic in such objects, the coastal State may, in applying article 33, presume that their removal from the sea-bed in the zone referred to in that article without its approval would result in an infringement within its territory or territorial sea of the laws and regulations referred to in that article.

3. Nothing in this article affects the rights of identifiable owners, the law of salvage or other rules of admiralty, or laws and practices with respect to cultural exchanges.

4. This article is without prejudice to other international agreements and rules of international law regarding the protection of objects of an archaeological and historical nature.

Article 304
Responsibility and liability for damage

The provisions of this Convention regarding responsibility and liability for damage are without prejudice to the application of existing rules and the development of further rules regarding responsibility and liability under international law.

PART XVII

FINAL PROVISIONS

Article 305
Signature

1. This Convention shall be open for signature by:

(a) all States;

(b) Namibia, represented by the United Nations Council for Namibia;

(c) all self-governing associated States which have chosen that status in an act of self-determination supervised and approved by the United Nations in accordance with General Assembly resolution 1514 (XV) and which have competence over the matters governed by this Convention, including the competence to enter into treaties in respect of those matters;

(d) all self-governing associated States which, in accordance with their respective instruments of association, have competence over the matters governed by this Convention, including the competence to enter into treaties in respect of those matters;

(e) all territories which enjoy full internal self-government, recognized as such by the United Nations, but have not attained full independence in accordance with General Assembly resolution 1514 (XV) and which have competence over the matters governed by this Convention, including the competence to enter into treaties in respect of those matters;

(f) international organizations, in accordance with Annex IX.

2. This Convention shall remain open for signature until 9 December 1984 at the Ministry of Foreign Affairs of Jamaica and also, from 1 July 1983 until 9 December 1984, at United Nations Headquarters in New York.

Article 306
Ratification and formal confirmation

This Convention is subject to ratification by States and the other entities referred to in article 305, paragraph 1(b), (c), (d) and (e), and to formal confirmation, in accordance with Annex IX, by the entities referred to in article 305, paragraph 1(f). The instruments of ratification and of formal confirmation shall be deposited with the Secretary-General of the United Nations.

Article 307
Accession

This Convention shall remain open for accession by States and the other entities referred to in article 305. Accession by the entities referred to in article 305, paragraph 1(f), shall be in accordance with Annex IX. The instruments of accession shall be deposited with the Secretary-General of the United Nations.

Article 308
Entry into force

1. This Convention shall enter into force 12 months after the date of deposit of the sixtieth instrument of ratification or accession.

2. For each State ratifying or acceding to this Convention after the deposit of the sixtieth instrument of ratification or accession, the Convention shall enter into force on the thirtieth day following the deposit of its instrument of ratification or accession, subject to paragraph 1.

3. The Assembly of the Authority shall meet on the date of entry into force of this Convention and shall elect the Council of the Authority. The first Council shall be constituted in a manner consistent with the purpose of article 161 if the provisions of that article cannot be strictly applied.

4. The rules, regulations and procedures drafted by the Preparatory Commission shall apply provisionally pending their formal adoption by the Authority in accordance with Part XI.

5. The Authority and its organs shall act in accordance with resolution II of the Third United Nations Conference on the Law of the Sea relating to preparatory investment and with decisions of the Preparatory Commission taken pursuant to that resolution.

Article 309
Reservations and exceptions

No reservations or exceptions may be made to this Convention unless expressly permitted by other articles of this Convention.

Article 310
Declarations and statements

Article 309 does not preclude a State, when signing, ratifying or acceding to this Convention, from making declarations or statements, however phrased or named, with a view, inter alia, to the harmonization of its laws and regulations with the provisions of this Convention, provided that such declarations or statements do not purport to exclude or to modify the legal effect of the provisions of this Convention in their application to that State.

Article 311
Relation to other conventions and international agreements

1. This Convention shall prevail, as between States Parties, over the Geneva Conventions on the Law of the Sea of 29 April 1958.

2. This Convention shall not alter the rights and obligations of States Parties which arise from other agreements compatible with this Convention and which do not affect the enjoyment by other States Parties of their rights or the performance of their obligations under this Convention.

3. Two or more States Parties may conclude agreements modifying or suspending the operation of provisions of this Convention, applicable solely to the relations between them, provided that such agreements do not relate to a provision derogation from which is incompatible with the effective execution of the object and purpose of this Convention, and provided further that such agreements shall not affect the application of the basic principles embodied herein, and that the provisions of such agreements do not affect the enjoyment by other States Parties of their rights or the performance of their obligations under this Convention.

4. States Parties intending to conclude an agreement referred to in paragraph 3 shall notify the other States Parties through the depositary of this Convention of their intention to conclude the agreement and of the modification or suspension for which it provides.

5. This article does not affect international agreements expressly permitted or preserved by other articles of this Convention.

6. States Parties agree that there shall be no amendments to the basic principle relating to the common heritage of mankind set forth in article 136 and that they shall not be party to any agreement in derogation thereof.

Article 312
Amendment

1. After the expiry of a period of 10 years from the date of entry into force of this Convention, a State Party may, by written communication addressed to the Secretary-General of the United Nations, propose specific amendments to this Convention, other than those relating to activities in the Area, and request the convening of a conference to consider such proposed amendments. The Secretary-General shall circulate such communication to all States Parties. If, within 12 months from the date of the circulation of the communication, not less than one half of the States Parties reply favourably to the request, the Secretary-General shall convene the conference.

2. The decision-making procedure applicable at the amendment conference shall be the same as that applicable at the Third United Nations Conference on the Law of the Sea unless otherwise decided by the conference. The conference should make every effort to reach agreement on any amendments by way of consensus and there should be no voting on them until all efforts at consensus have been exhausted.

Article 313
Amendment by simplified procedure

1. A State Party may, by written communication addressed to the Secretary-General of the United Nations, propose an amendment to this Convention, other than an amendment relating to activities in the Area, to be adopted by the simplified procedure set forth in this article without convening a conference. The Secretary-General shall circulate the communication to all States Parties.

2. If, within a period of 12 months from the date of the circulation of the communication, a State Party objects to the proposed amendment or to the proposal for its adoption by the simplified procedure, the amendment shall be considered rejected. The Secretary-General shall immediately notify all States Parties accordingly.

3. If, 12 months from the date of the circulation of the communication, no State Party has objected to the proposed amendment or to the proposal for its adoption by the simplified procedure, the proposed amendment shall be considered adopted. The Secretary-General shall notify all States Parties that the proposed amendment has been adopted.

Article 314
Amendments to the provisions of this Convention relating exclusively to activities in the Area

1. A State Party may, by written communication addressed to the Secretary-General of the Authority, propose an amendment to the provisions of this Convention relating exclusively to activities in the Area, including Annex VI, section 4. The Secretary-General shall circulate such communication to all States Parties. The proposed amendment shall be subject to approval by the Assembly following its approval by the Council. Representatives of States Parties in those organs shall have full powers to consider and approve the proposed amendment. The proposed amendment as approved by the Council and the Assembly shall be considered adopted.

2. Before approving any amendment under paragraph 1, the Council and the Assembly shall ensure that it does not prejudice the system of exploration for and exploitation of the resources of the Area, pending the Review Conference in accordance with article 155.

Article 315
Signature, ratification of, accession to and authentic texts of amendments

1. Once adopted, amendments to this Convention shall be open for signature by States Parties for 12 months from the date of adoption, at United Nations Headquarters in New York, unless otherwise provided in the amendment itself.

2. Articles 306, 307 and 320 apply to all amendments to this Convention.

Article 316
Entry into force of amendments

1. Amendments to this Convention, other than those referred to in paragraph 5, shall enter into force for the States Parties ratifying or acceding to them on the thirtieth day following the deposit of instruments of ratification or accession by two thirds of the States Parties or by 60 States Parties, whichever is greater. Such amendments shall not affect the enjoyment by other States Parties of their rights or the performance of their obligations under this Convention.

2. An amendment may provide that a larger number of ratifications or accessions shall be required for its entry into force than are required by this article.

3. For each State Party ratifying or acceding to an amendment referred to in paragraph 1 after the deposit of the required number of instruments of ratification or accession, the amendment shall enter into force on the thirtieth day following the deposit of its instrument of ratification or accession.

4. A State which becomes a Party to this Convention after the entry into force of an amendment in accordance with paragraph 1 shall, failing an expression of a different intention by that State:

(a) be considered as a Party to this Convention as so amended; and

(b) be considered as a Party to the unamended Convention in relation to any State Party not bound by the amendment.

5. Any amendment relating exclusively to activities in the Area and any amendment to Annex VI shall enter into force for all States Parties one year following the deposit of instruments of ratification or accession by three fourths of the States Parties.

6. A State which becomes a Party to this Convention after the entry into force of amendments in accordance with paragraph 5 shall be considered as a Party to this Convention as so amended.

Article 317
Denunciation

1. A State Party may, by written notification addressed to the Secretary-General of the United Nations, denounce this Convention and may indicate its reasons. Failure to indicate reasons shall not affect the validity of the denunciation. The denunciation shall take effect one year after the date of receipt of the notification, unless the notification specifies a later date.

2. A State shall not be discharged by reason of the denunciation from the financial and contractual obligations which accrued while it was a Party to this Convention, nor shall the denunciation affect any right, obligation or legal situation of that State created through the execution of this Convention prior to its termination for that State.

3. The denunciation shall not in any way affect the duty of any State Party to fulfil any obligation embodied in this Convention to which it would be subject under international law independently of this Convention.

Article 318
Status of Annexes

The Annexes form an integral part of this Convention and, unless expressly provided otherwise, a reference to this Convention or to one of its Parts includes a reference to the Annexes relating thereto.

Article 319
Depositary

1. The Secretary-General of the United Nations shall be the depositary of this Convention and amendments thereto.

2. In addition to his functions as depositary, the Secretary-General shall:

(a) report to all States Parties, the Authority and competent international organizations on issues of a general nature that have arisen with respect to this Convention;

(b) notify the Authority of ratifications and formal confirmations of and accessions to this Convention and amendments thereto, as well as of denunciations of this Convention;

(c) notify States Parties of agreements in accordance with article 311, paragraph 4;

(d) circulate amendments adopted in accordance with this Convention to States Parties for ratification or accession;

(e) convene necessary meetings of States Parties in accordance with this Convention.

3. (a) The Secretary-General shall also transmit to the observers referred to in article 156:

(i) reports referred to in paragraph 2(a);

(ii) notifications referred to in paragraph 2(b) and (c); and

(iii) texts of amendments referred to in paragraph 2(d), for their information.

(b) The Secretary-General shall also invite those observers to participate as observers at meetings of States Parties referred to in paragraph 2(e).

Article 320
Authentic texts

The original of this Convention, of which the Arabic, Chinese, English, French, Russian and Spanish texts are equally authentic, shall, subject to article 305, paragraph 2, be deposited with the Secretary-General of the United Nations.

IN WITNESS WHEREOF, the undersigned Plenipotentiaries, being duly authorized thereto, have signed this Convention.

DONE AT MONTEGO BAY, this tenth day of December, one thousand nine hundred and eighty-two.

ANNEX I. HIGHLY MIGRATORY SPECIES

1. Albacore tuna: Thunnus alalunga.

2. Bluefin tuna: Thunnus thynnus.

3. Bigeye tuna: Thunnus obesus.

4. Skipjack tuna: Katsuwonus pelamis.

5. Yellowfin tuna: Thunnus albacares.

6. Blackfin tuna: Thunnus atlanticus.

7. Little tuna: Euthynnus alletteratus; Ernthynnus affinis.

8. Southern bluefin tuna: Thunnus maccoyii.

9. Frigate mackerel: Auxis thazard; Auxis rochei.

10. Pomfrets: Family Bramidae.

11. Marlins: Tetrapturus angustirostris; Tetrapturus belone; Tetrapturus pfluegeri; Tetrapturus albidus; Tetrapturus audax; Tetrapturus georgei; Makaira mazara; Makaira indica; Makaira nigricans.

12. Sail-fishes: Istiophorus platypterus; Istiophorus albicans.

13. Swordfish: Xiphias gladius.

14. Sauries: Scomberesox saurus; Cololabis saira; Cololabis adocetus; Scomberesox saurus scombroides.

15. Dolphin: Coryphaena hippurus; Coryphaena equiselis.

16. Oceanic sharks: Hexanchus griseus; Cetorhinus maximus; Family Alopiidae; Rhincodon typus; Family Carcharhinidae; Family Sphyrnidae; Family Isurida.

17. Cetaceans: Family Physeteridae; Family Balaenopteridae; Family Balaenidae; Family Eschrichtiidae; Family Monodontidae; Family Ziphiidae; Family Delphinidae.

ANNEX II. COMMISSION ON THE LIMITS OF THE CONTINENTAL SHELF

Article 1

In accordance with the provisions of article 76, a Commission on the Limits of the Continental Shelf beyond 200 nautical miles shall be established in conformity with the following articles.

Article 2

1. The Commission shall consist of 21 members who shall be experts in the field of geology, geophysics or hydrography, elected by States Parties to this Convention from among their nationals, having due regard to the need to ensure equitable geographical representation, who shall serve in their personal capacities.

2. The initial election shall be held as soon as possible but in any case within 18 months after the date of entry into force of this Convention. At least three months before the date of each election, the Secretary-General of the United Nations shall address a letter to the States Parties, inviting the submission of nominations, after appropriate regional consultations, within three months. The Secretary-General shall prepare a list in alphabetical order of all persons thus nominated and shall submit it to all the States Parties.

3. Elections of the members of the Commission shall be held at a meeting of States Parties convened by the Secretary-General at United Nations Headquarters. At that meeting, for which two thirds of the States Parties shall constitute a quorum, the persons elected to the Commission shall be those nominees who obtain a two-thirds majority of the votes of the representatives of States Parties present and voting. Not less than three members shall be elected from each geographical region.

4. The members of the Commission shall be elected for a term of five years. They shall be eligible for re-election.

5. The State Party which submitted the nomination of a member of the Commission shall defray the expenses of that member while in performance of Commission duties. The coastal State concerned shall defray the expenses incurred in respect of the advice referred to in article 3, paragraph 1(b), of this Annex. The secretariat of the Commission shall be provided by the Secretary-General of the United Nations.

Article 3

1. The functions of the Commission shall be:

(a) to consider the data and other material submitted by coastal States concerning the outer limits of the continental shelf in areas where those limits extend beyond 200 nautical miles, and to make recommendations in accordance with article 76 and the Statement of Understanding adopted on 29 August 1980 by the Third United Nations Conference on the Law of the Sea;

(b) to provide scientific and technical advice, if requested by the coastal State concerned during the preparation of the data referred to in subparagraph (a).

2. The Commission may co-operate, to the extent considered necessary and useful, with the Intergovernmental Oceanographic Commission of UNESCO, the International Hydrographic Organization and other competent international organizations with a view to exchanging scientific and technical information which might be of assistance in discharging the Commission's responsibilities.

Article 4

Where a coastal State intends to establish, in accordance with article 76, the outer limits of its continental shelf beyond 200 nautical miles, it shall submit particulars of such limits to the Commission along with supporting scientific and technical data as soon as possible but in any case within 10 years of the entry into force of this Convention for that State. The coastal State shall at the same time give the names of any Commission members who have provided it with scientific and technical advice.

Article 5

Unless the Commission decides otherwise, the Commission shall function by way of sub-commissions composed of seven members, appointed in a balanced manner taking into account the specific elements of each submission by a coastal State. Nationals of the coastal State making the submission who are members of the Commission and any Commission member who has assisted a coastal State by providing scientific and technical advice with respect to the delineation shall not be a member of the sub-commission dealing with that submission but has the right to participate as a member in the proceedings of the Commission concerning the said submission. The coastal State which has made a submission to the Commission may send its representatives to participate in the relevant proceedings without the right to vote.

Article 6

1. The sub-commission shall submit its recommendations to the Commission.

2. Approval by the Commission of the recommendations of the sub-commission shall be by a majority of two thirds of Commission members present and voting.

3. The recommendations of the Commission shall be submitted in writing to the coastal State which made the submission and to the Secretary-General of the United Nations.

Article 7

Coastal States shall establish the outer limits of the continental shelf in conformity with the provisions of article 76, paragraph 8, and in accordance with the appropriate national procedures.

Article 8

In the case of disagreement by the coastal State with the recommendations of the Commission, the coastal State shall, within a reasonable time, make a revised or new submission to the Commission.

Article 9

The actions of the Commission shall not prejudice matters relating to delimitation of boundaries between States with opposite or adjacent coasts.

ANNEX III. BASIC CONDITIONS OF PROSPECTING, EXPLORATION AND EXPLOITATION

Article 1
Title to minerals

Title to minerals shall pass upon recovery in accordance with this Convention.

Article 2
Prospecting

1. (a) The Authority shall encourage prospecting in the Area.

(b) Prospecting shall be conducted only after the Authority has received a satisfactory written undertaking that the proposed prospector will comply with this Convention and the relevant rules, regulations and procedures of the Authority concerning co-operation in the training programmes referred to in articles 143 and 144 and the protection of the marine environment, and will accept verification by the Authority of compliance therewith. The proposed prospector shall, at the same time, notify the Authority of the approximate area or areas in which prospecting is to be conducted.

(c) Prospecting may be conducted simultaneously by more than one prospector in the same area or areas.

2. Prospecting shall not confer on the prospector any rights with respect to resources. A prospector may, however, recover a reasonable quantity of minerals to be used for testing.

Article 3
Exploration and exploitation

1. The Enterprise, States Parties, and the other entities referred to in article 153, paragraph 2(b), may apply to the Authority for approval of plans of work for activities in the Area.

2. The Enterprise may apply with respect to any part of the Area, but applications by others with respect to reserved areas are subject to the additional requirements of article 9 of this Annex.

3. Exploration and exploitation shall be carried out only in areas specified in plans of work referred to in article 153, paragraph 3, and approved by the Authority in accordance with this Convention and the relevant rules, regulations and procedures of the Authority.

4. Every approved plan of work shall:

(a) be in conformity with this Convention and the rules, regulations and procedures of the Authority;

(b) provide for control by the Authority of activities in the Area in accordance with article 153, paragraph 4;

(c) confer on the operator, in accordance with the rules, regulations and procedures of the Authority, the exclusive right to explore for and exploit the specified categories of resources in the area covered by the plan of work. If, however, the applicant presents for approval a plan of work covering only the stage of exploration or the stage of exploitation, the approved plan of work shall confer such exclusive right with respect to that stage only.

5. Upon its approval by the Authority, every plan of work, except those presented by the Enterprise, shall be in the form of a contract concluded between the Authority and the applicant or applicants.

Article 4
Qualifications of applicants

1. Applicants, other than the Enterprise, shall be qualified if they have the nationality or control and sponsorship required by article 153, paragraph 2(b), and if they follow the procedures and meet the qualification standards set forth in the rules, regulations and procedures of the Authority.

2. Except as provided in paragraph 6, such qualification standards shall relate to the financial and technical capabilities of the applicant and his performance under any previous contracts with the Authority.

3. Each applicant shall be sponsored by the State Party of which it is a national unless the applicant has more than one nationality, as in the case of a partnership or consortium of entities from several States, in which event all States Parties involved shall sponsor the application, or unless the applicant is effectively controlled by another State Party or its nationals, in which event both States Parties shall sponsor the application. The criteria and procedures for implementation of the sponsorship requirements shall be set forth in the rules, regulations and procedures of the Authority.

4. The sponsoring State or States shall, pursuant to article 139, have the responsibility to ensure, within their legal systems, that a contractor so sponsored shall carry out activities in the Area in conformity with the terms of its contract and its obligations under this Convention. A sponsoring State shall not, however, be liable for damage caused by any failure of a contractor sponsored by it to comply with its obligations if that State Party has adopted laws and regulations and taken administrative measures which are, within the framework of its legal system, reasonably appropriate for securing compliance by persons under its jurisdiction.

5. The procedures for assessing the qualifications of States Parties which are applicants shall take into account their character as States.

6. The qualification standards shall require that every applicant, without exception, shall as part of his application undertake:

(a) to accept as enforceable and comply with the applicable obligations created by the provisions of Part XI, the rules, regulations and procedures of the Authority, the decisions of the organs of the Authority and terms of his contracts with the Authority;

(b) to accept control by the Authority of activities in the Area, as authorized by this Convention;

(c) to provide the Authority with a written assurance that his obligations under the contract will be fulfilled in good faith;

(d) to comply with the provisions on the transfer of technology set forth in article 5 of this Annex.

Article 5
Transfer of technology

1. When submitting a plan of work, every applicant shall make available to the Authority a general description of the equipment and methods to be used in carrying out activities in the Area, and other relevant non-proprietary information about the characteristics of such technology and information as to where such technology is available.

2. Every operator shall inform the Authority of revisions in the description and information made available pursuant to paragraph 1 whenever a substantial technological change or innovation is introduced.

3. Every contract for carrying out activities in the Area shall contain the following undertakings by the contractor:

(a) to make available to the Enterprise on fair and reasonable commercial terms and conditions, whenever the Authority so requests, the technology which he uses in carrying out activities in the Area under the contract, which the contractor is legally entitled to transfer. This shall be done by means of licences or other appropriate arrangements which the contractor shall negotiate with the Enterprise and which shall be set forth in a specific agreement supplementary to the contract. This undertaking may be invoked only if the Enterprise finds that it is unable to obtain the same or equally efficient and useful technology on the open market on fair and reasonable commercial terms and conditions;

(b) to obtain a written assurance from the owner of any technology used in carrying out activities in the Area under the contract, which is not generally available on the open market and which is not covered by subparagraph (a), that the owner will, whenever the Authority so requests, make that technology available to the Enterprise under licence or other appropriate arrangements and on fair and reasonable commercial terms and conditions, to the same extent as made available to the contractor. If this assurance is not obtained, the technology in question shall not be used by the contractor in carrying out activities in the Area;

(c) to acquire from the owner by means of an enforceable contract, upon the request of the Enterprise and if it is possible to do so without substantial cost to the contractor, the legal right to transfer to the Enterprise any technology used by the contractor, in carrying out activities in the Area under the contract, which the contractor is otherwise not legally entitled to transfer and which is not generally available on the open market. In cases where there is a substantial corporate relationship between the contractor and the owner of the technology, the closeness of this relationship and the degree of control or influence shall be relevant to the determination whether all feasible measures have been taken to acquire such a right. In cases where the contractor exercises effective control over the owner, failure to acquire from the owner the legal right shall be considered relevant to the contractor's qualification for any subsequent application for approval of a plan of work;

(d) to facilitate, upon the request of the Enterprise, the acquisition by the Enterprise of any technology covered by subparagraph (b), under licence or other appropriate arrangements and on fair and reasonable commercial terms and conditions, if the Enterprise decides to negotiate directly with the owner of the technology;

(e) to take the same measures as are prescribed in subparagraphs (a), (b), (c) and (d) for the benefit of a developing State or group of developing States which has applied for a contract under article 9 of this Annex, provided that these measures shall be limited to the exploitation of the part of the area proposed by the contractor which has been reserved pursuant to article 8 of this Annex and provided that activities under the contract sought by the developing State or group of developing States would not involve transfer of technology to a third State or the nationals of a third State. The obligation under this provision shall only apply with respect to any given contractor where technology has not been requested by the Enterprise or transferred by that contractor to the Enterprise.

4. Disputes concerning undertakings required by paragraph 3, like other provisions of the contracts, shall be subject to compulsory settlement in accordance with Part XI and, in cases of violation of these undertakings, suspension or termination of the contract or monetary penalties may be ordered in accordance with article 18 of this Annex. Disputes as to whether offers made by the contractor are within the range of fair and reasonable commercial terms and conditions may be submitted by either party to binding commercial arbitration in accordance with the UNCITRAL Arbitration Rules or such other arbitration rules as may be prescribed in the rules, regulations and procedures of the Authority. If the finding is that the offer made by the contractor is not within the range of fair and

reasonable commercial terms and conditions, the contractor shall be given 45 days to revise his offer to bring it within that range before the Authority takes any action in accordance with article 18 of this Annex.

5. If the Enterprise is unable to obtain on fair and reasonable commercial terms and conditions appropriate technology to enable it to commence in a timely manner the recovery and processing of minerals from the Area, either the Council or the Assembly may convene a group of States Parties composed of those which are engaged in activities in the Area, those which have sponsored entities which are engaged in activities in the Area and other States Parties having access to such technology. This group shall consult together and shall take effective measures to ensure that such technology is made available to the Enterprise on fair and reasonable commercial terms and conditions. Each such State Party shall take all feasible measures to this end within its own legal system.

6. In the case of joint ventures with the Enterprise, transfer of technology will be in accordance with the terms of the joint venture agreement.

7. The undertakings required by paragraph 3 shall be included in each contract for the carrying out of activities in the Area until 10 years after the commencement of commercial production by the Enterprise, and may be invoked during that period.

8. For the purposes of this article, "technology" means the specialized equipment and technical know-how, including manuals, designs, operating instructions, training and technical advice and assistance, necessary to assemble, maintain and operate a viable system and the legal right to use these items for that purpose on a non-exclusive basis.

Article 6
Approval of plans of work

1. Six months after the entry into force of this Convention, and thereafter each fourth month, the Authority shall take up for consideration proposed plans of work.

2. When considering an application for approval of a plan of work in the form of a contract, the Authority shall first ascertain whether:

(a) the applicant has complied with the procedures established for applications in accordance with article 4 of this Annex and has given the Authority the undertakings and assurances required by that article. In cases of non-compliance with these procedures or in the absence of any of these undertakings and assurances, the applicant shall be given 45 days to remedy these defects;

(b) the applicant possesses the requisite qualifications provided for in article 4 of this Annex.

3. All proposed plans of work shall be taken up in the order in which they are received. The proposed plans of work shall comply with and be governed by the relevant provisions of this Convention and the rules, regulations and procedures of the Authority, including those on operational requirements, financial contributions and the undertakings concerning the transfer of technology. If the proposed plans of work conform to these requirements, the Authority shall approve them provided that they are in accordance with the uniform and non-discriminatory requirements set forth in the rules, regulations and procedures of the Authority, unless:

(a) part or all of the area covered by the proposed plan of work is included in an approved plan of work or a previously submitted proposed plan of work which has not yet been finally acted on by the Authority;

(b) part or all of the area covered by the proposed plan of work is disapproved by the Authority pursuant to article 162, paragraph 2 (x); or

(c) the proposed plan of work has been submitted or sponsored by a State Party which already holds:

(i) plans of work for exploration and exploitation of polymetallic nodules in non-reserved areas that, together with either part of the area covered by the application for a plan of work, exceed in size 30 per cent of a circular area of 400,000 square kilometres surrounding the centre of either part of the area covered by the proposed plan of work;

(ii) plans of work for the exploration and exploitation of polymetallic nodules in non-reserved areas which, taken together, constitute 2 per cent of the total sea-bed area which is not reserved or disapproved for exploitation pursuant to article 162, paragraph (2) (x).

4. For the purpose of the standard set forth in paragraph 3(c), a plan of work submitted by a partnership or consortium shall be counted on a pro rata basis among the sponsoring States Parties involved in accordance with article 4, paragraph 3, of this Annex. The Authority may approve plans of work covered by paragraph 3 (c) if it determines that such approval would not permit a State Party or entities sponsored by it to monopolize the conduct of activities in the Area or to preclude other States Parties from activities in the Area.

5. Notwithstanding paragraph 3(a), after the end of the interim period specified in article 151, paragraph 3, the Authority may adopt by means of rules, regulations and procedures other procedures and criteria consistent with this Convention for deciding which applicants shall have plans of work approved in cases of selection among applicants for a proposed area. These procedures and criteria shall ensure approval of plans of work on an equitable and non-discriminatory basis.

Article 7
Selection among applicants for production authorizations

1. Six months after the entry into force of this Convention, and thereafter each fourth month, the Authority shall take up for consideration applications for production authorizations submitted during the immediately preceding period. The Authority shall issue the authorizations applied for if all such applications can be approved without exceeding the production limitation or contravening the obligations of the Authority under a commodity agreement or arrangement to which it has become a party, as provided in article 151.

2. When a selection must be made among applicants for production authorizations because of the production limitation set forth in article 151, paragraphs 2 to 7, or because of the obligations of the Authority under a commodity agreement or arrangement to which it has become a party, as provided for in article 151, paragraph 1, the Authority shall make the selection on the basis of objective and non-discriminatory standards set forth in its rules, regulations and procedures.

3. In the application of paragraph 2, the Authority shall give priority to those applicants which:

(a) give better assurance of performance, taking into account their financial and technical qualifications and their performance, if any, under previously approved plans of work;

(b) provide earlier prospective financial benefits to the Authority, taking into account when commercial production is scheduled to begin;

(c) have already invested the most resources and effort in prospecting or exploration.

4. Applicants which are not selected in any period shall have priority in subsequent periods until they receive a production authorization.

5. Selection shall be made taking into account the need to enhance opportunities for all States parties, irrespective of their social and economic systems or geographical locations so as to avoid discrimination against any State or system, to participate in activities in the Area and to prevent monopolization of those activities.

6. Whenever fewer reserved areas than non-reserved areas are under exploitation, applications for production authorizations with respect to reserved areas shall have priority.

7. The decisions referred to in this article shall be taken as soon as possible after the close of each period.

Article 8
Reservation of areas

Each application, other than those submitted by the Enterprise or by any other entities for reserved areas, shall cover a total area, which need not be a single continuous area, sufficiently large and of sufficient estimated commercial value to allow two mining operations. The applicant shall indicate the co-ordinates dividing the area into two parts of equal estimated commercial value and submit all the data obtained by him with respect to both parts. Without prejudice to the powers of the Authority pursuant to article 17 of this Annex, the data to be submitted concerning polymetallic nodules shall relate to mapping, sampling, the abundance of nodules, and their metal content. Within 45 days of receiving such data, the Authority shall designate which part is to be reserved solely for the conduct of activities by the Authority through the Enterprise or in association with developing States. This designation may be deferred for a further period of 45 days if the Authority requests an independent expert to assess whether all data required by this article has been submitted. The area designated shall become a reserved area as soon as the plan of work for the non-reserved area is approved and the contract is signed.

Article 9
Activities in reserved areas

1. The Enterprise shall be given an opportunity to decide whether it intends to carry out activities in each reserved area. This decision may be taken at any time, unless a notification pursuant to paragraph 4 is received by the Authority, in which event the Enterprise shall take its decision within a reasonable time. The Enterprise may decide to exploit such areas in joint ventures with the interested State or entity.

2. The Enterprise may conclude contracts for the execution of part of its activities in accordance with Annex IV, article 12. It may also enter into joint ventures for the conduct of such activities with any entities which are eligible to carry out activities in the Area pursuant to article 153, paragraph 2(b). When considering such joint ventures, the Enterprise shall offer to States Parties which are developing States and their nationals the opportunity of effective participation.

3. The Authority may prescribe, in its rules, regulations and procedures substantive and procedural requirements and conditions with respect to such contracts and joint ventures.

4. Any State Party which is a developing State or any natural or juridical person sponsored by it and effectively controlled by it or by other developing State which is a qualified applicant, or any group of the foregoing, may notify the Authority that it wishes to submit a plan of work pursuant to article 6 of this Annex with respect to a reserved area. The plan of work shall be considered if the Enterprise decides, pursuant to paragraph 1, that it does not intend to carry out, activities in that area.

Article 10
Preference and priority among applicants

An operator who has an approved plan of work for exploration only, as provided in article 3, paragraph 4(c), of this Annex shall have a preference and a priority among applicants for a plan of work covering exploitation of the same area and resources. However, such preference or priority may be withdrawn if the operator's performance has not been satisfactory.

Article 11
Joint arrangements

1. Contracts may provide for joint arrangements between the contractor and the Authority through the Enterprise, in the form of joint ventures or production sharing, as well as any other form of joint arrangement, which shall have the same protection against revision, suspension or termination as contracts with the Authority.

2. Contractors entering into such joint arrangements with the Enterprise may receive financial incentives as provided for in article 13 of this Annex.

3. Partners in joint ventures with the Enterprise shall be liable for the payments required by article 13 of this Annex to the extent of their share in the joint ventures, subject to financial incentives as provided for in that article.

Article 12
Activities carried out by the Enterprise

1. Activities in the Area carried out by the Enterprise pursuant to article 153, paragraph 2(a), shall be governed by Part XI, the rules, regulations and procedures of the Authority and its relevant decisions.

2. Any plan of work submitted by the Enterprise shall be accompanied by evidence supporting its financial and technical capabilities.

Article 13
Financial terms of contracts

1. In adopting rules, regulations and procedures concerning the financial terms of a contract between the Authority and the entities referred to in article 153, paragraph 2(b), and in negotiating those financial terms in accordance with Part XI and those rules, regulations and procedures, the Authority shall be guided by the following objectives:

(a) to ensure optimum revenues for the Authority from the proceeds of commercial production;

(b) to attract investments and technology to the exploration and exploitation of the Area;

(c) to ensure equality of financial treatment and comparable financial obligations for contractors;

(d) to provide incentives on a uniform and non-discriminatory basis for contractors to undertake joint arrangements with the Enterprise and developing States or their nationals, to stimulate the transfer of technology thereto, and to train the personnel of the Authority and of developing States;

(e) to enable the Enterprise to engage in sea-bed mining effectively at the same time as the entities referred to in article 153, paragraph 2(b); and

(f) to ensure that, as a result of the financial incentives provided to contractors under paragraph 14, under the terms of contracts reviewed in accordance with article 19 of this Annex or under the provisions of article 11 of this Annex with respect to joint ventures, contractors are not subsidized so as to be given an artificial competitive advantage with respect to land-based miners.

2. A fee shall be levied for the administrative cost of processing an application for approval of a plan of work in the form of a contract and shall be fixed at an amount of $US 500,000 per application. The amount of the fee shall be reviewed from time to time by the Council in order to ensure that it covers the administrative cost incurred. If such administrative cost incurred by the Authority in processing an application is less than the fixed amount, the Authority shall refund the difference to the applicant.

3. A contractor shall pay an annual fixed fee of $US 1 million from the date of entry into force of the contract. If the approved date of commencement of commercial production is postponed because of a delay in issuing the production authorization, in accordance with article 151, the annual fixed fee shall be waived for the period of postponement. From the date of commencement of commercial production, the contractor shall pay either the production charge or the annual fixed fee, whichever is greater.

4. Within a year of the date of commencement of commercial production, in conformity with paragraph 3, a contractor shall choose to make his financial contribution to the Authority by either:

(a) paying a production charge only; or

(b) paying a combination of a production charge and a share of net proceeds.

5. (a) If a contractor chooses to make his financial contribution to the Authority by paying a production charge only, it shall be fixed at a percentage of the market value of the processed metals produced from the polymetallic nodules recovered from the area covered by the contract. This percentage shall be fixed as follows:

(i) years 1-10 of commercial production — 5 per cent

(ii) years 11 to the end of commercial production — 12 per cent

(b) The said market value shall be the product of the quantity of the processed metals produced from the polymetallic nodules extracted from the area covered by the contract and the average price for those metals during the relevant accounting year, as defined in paragraphs 7 and 8.

6. If a contractor chooses to make his financial contribution to the Authority by paying a combination of a production charge and a share of net proceeds, such payments shall be determined as follows:

(a) The production charge shall be fixed at a percentage of the market value, determined in accordance with subparagraph (b), of the processed metals produced from the polymetallic nodules recovered from the area covered by the contract. This percentage shall be fixed as follows:

(i) first period of commercial production — 2 per cent

(ii) second period of commercial production — 4 per cent

If, in the second period of commercial production, as defined in subparagraph (d), the return on investment in any accounting year as defined in subparagraph (m) falls below 15 per cent as a result of the payment of the production charge at 4 per cent, the production charge shall be 2 per cent instead of 4 per cent in that accounting year.

(b) The said market value shall be the product of the quantity of the processed metals produced from the polymetallic nodules recovered from the area covered by the contract and the average price for those metals during the relevant accounting year as defined in paragraphs 7 and 8.

(c) (i) The Authority's share of net proceeds shall be taken out of that portion of the contractor's net proceeds which is attributable to the mining of the resources of the area covered by the contract, referred to hereinafter as attributable net proceeds.

(ii) The Authority's share of attributable net proceeds shall be determined in accordance with the following incremental schedule:

Portion of attributable net proceeds	Share of the Authority	
	First period of commercial production	Second period of commercial production
That portion representing a return on investment which is greater than 0 per cent, but less than 10 per cent	35 per cent	40 per cent
That portion representing a return on investment which is 10 per cent or greater, but less than 20 per cent	42.5 per cent	50 per cent
That portion representing a return on investment which is 20 per cent or greater	50 per cent	70 per cent

(d) (i) The first period of commercial production referred to in subparagraphs (a) and (c) shall commence in the first accounting year of commercial production and terminate in the accounting year in which the contractor's development costs with interest on the unrecovered portion thereof are fully recovered by his cash surplus, as follows:
In the first accounting year during which development costs are incurred, unrecovered development costs shall equal the development costs less cash surplus in that year. In each subsequent accounting year, unrecovered development costs shall equal the unrecovered development costs at the end of the preceding accounting year, plus interest thereon at the rate of 10 per cent per annum, plus development costs incurred in the current accounting year and less contractor's cash surplus in the current accounting year. The accounting year in which unrecovered development costs become zero for the first time shall be the accounting year in which the contractor's development costs with interest on the unrecovered portion thereof are fully recovered by his cash surplus. The contractor's cash surplus in any accounting year shall be his gross proceeds less his operating costs and less his payments to the Authority under subparagraph (c).

(ii) The second period of commercial Production shall commence in the accounting year following the termination of the first period of commercial production and shall continue until the end of the contract.

(e) "Attributable net proceeds" means the product of the contractor's net proceeds and the ratio of the development costs in the mining sector to the contractor's development costs. If the contractor engages in mining, transporting polymetallic nodules and production primarily of three processed metals, namely, cobalt, copper and nickel, the amount of attributable net proceeds shall not be less than 25 per cent of the contractor's net proceeds. Subject to subparagraph (n), in all other cases, including those where the contractor engages in mining, transporting polymetallic nodules, and production primarily of four processed metals, namely, cobalt, copper, manganese and nickel, the Authority may, in its rules, regulations and procedures, prescribe appropriate floors which shall bear the same relationship to each case as the 25 per cent floor does to the three-metal case.

(f) "Contractor's net proceeds" means the contractor's gross proceeds less his operating costs and less the recovery of his development costs as set out in subparagraph (j).

(g) (i) If the contractor engages in mining, transporting polymetallic nodules and production of processed metals, "contractor's gross proceeds" means the gross revenues from the sale of the processed metals and any other monies deemed reasonably attributable to operations under the contract in accordance with the financial rules, regulations and procedures of the Authority.

(ii) In all cases other than those specified in subparagraphs (g) (i) and (n) (iii), "contractor's gross proceeds" means the gross revenues from the sale of the semi-processed metals from the polymetallic nodules recovered from the area covered by the contract, and any other monies deemed reasonably attributable to operations under the contract in accordance with the financial rules, regulations and procedures of the Authority.

(h) "Contractor's development costs" means:

(i) all expenditures incurred prior to the commencement of commercial production which are directly related to the development of the productive capacity of the area covered by the contract and the activities related thereto for operations under the contract in all cases other than that specified in subparagraph (n), in conformity with generally recognized accounting principles, including, inter alia, costs of machinery, equipment, ships, processing plant, construction, buildings, land, roads, prospecting and exploration of the area covered by the contract, research and development, interest, required leases, licences and fees; and

(ii) expenditures similar to those set forth in (i) above incurred subsequent to the commencement of commercial production and necessary to carry out the plan of work, except those chargeable to operating costs.

(i) The proceeds from the disposal of capital assets and the market value of those capital assets which are no longer required for operations under the contract and which are not sold shall be deducted from the

contractor's development costs during the relevant accounting year. When these deductions exceed the contractor's development costs the excess shall be added to the contractor's gross proceeds.

(j) The contractor's development costs incurred prior to the commencement of commercial production referred to in subparagraphs (h) (i) and (n) (iv) shall be recovered in 10 equal annual instalments from the date of commencement of commercial production. The contractor's development costs incurred subsequent to the commencement of commercial production referred to in subparagraphs (h) (ii) and (n) (iv) shall be recovered in 10 or fewer equal annual instalments so as to ensure their complete recovery by the end of the contract.

(k) "Contractor's operating costs" means all expenditures incurred after the commencement of commercial production in the operation of the productive capacity of the area covered by the contract and the activities related thereto for operations under the contract, in conformity with generally recognized accounting principles, including: inter alia, the annual fixed fee or the production charge, whichever is greater, expenditures for wages, salaries, employee benefits, materials, services, transporting, processing and marketing costs, interest, utilities, preservation of the marine environment, overhead and administrative costs specifically related to operations under the contract, and any net operating losses carried forward or backward as specified herein. Net operating losses may be carried forward for two consecutive years except in the last two years of the contract in which case they may be carried backward to the two preceding years.

(l) If the contractor engages in mining, transporting of polymetallic nodules, and production of processed and semi-processed metals, "development costs of the mining sector" means the portion of the contractor's development costs which is directly related to the mining of the resources of the area covered by the contract, in conformity with generally recognized accounting principles, and the financial rules, regulations and procedures of the Authority, including, inter alia, application fee, annual fixed fee and, where applicable, costs of prospecting and exploration of the area covered by the contract, and a portion of research and development costs.

(m) "Return on investment" in any accounting year means the ratio of attributable net proceeds in that year to the development costs of the mining sector. For the purpose of computing this ratio the development costs of the mining sector shall include expenditures on new or replacement equipment in the mining sector less the original cost of the equipment replaced.

(n) If the contractor engages in mining only:

(i) "attributable net proceeds" means the whole of the contractor's net proceeds;

(ii) "contractor's net proceeds" shall be as defined in subparagraph (f);

(iii) "contractor's gross proceeds" means the gross revenues from the sale of the polymetallic nodules, and any other monies deemed reasonably attributable to operations under the contract in accordance with the financial rules, regulations and procedures of the Authority;

(iv) "contractor's development costs" means all expenditures incurred prior to the commencement of commercial production as set forth in subparagraph (h) (i), and all expenditures incurred subsequent to the commencement of commercial production as set forth in subparagraph (h) (ii), which are directly related to the mining of the resources of the area covered by the contract, in conformity with generally recognized accounting principles;

(v) "contractor's operating costs" means the contractor's operating costs as in subparagraph (k) which are directly related to the mining of the resources of the area covered by the contract in conformity with generally recognized accounting principles;

(vi) "return on investment" in any accounting year means the ratio of the contractor's net proceeds in that year to the contractor's development costs. For the purpose of computing this ratio, the contractor's development costs shall include expenditures on new or replacement equipment less the original cost of the equipment replaced.

(o) The costs referred to in subparagraphs (h), (k), (l) and (n) in respect of interest paid by the contractor shall be allowed to the extent that, in all the circumstances, the Authority approves, pursuant to article 4, paragraph 1, of this Annex, the debt-equity ratio and the rates of interest as reasonable, having regard to existing commercial practice.

(p) The costs referred to in this paragraph shall not be interpreted as including payments of corporate income taxes or similar charges levied by States in respect of the operations of the contractor.

7. (a) "Processed metals", referred to in paragraphs 5 and 6, means the metals in the most basic form in which they are customarily traded on international terminal markets. For this purpose, the Authority shall specify, in its financial rules, regulations and procedures, the relevant international terminal market. For the metals which are not traded on such markets, "processed metals" means the metals in the most basic form in which they are customarily traded in representative arm's length transactions.

(b) If the Authority cannot otherwise determine the quantity of the processed metals produced from the polymetallic nodules recovered from the area covered by the contract referred to in paragraphs 5 (b) and 6 (b), the quantity shall be determined on the basis of the metal content of the nodules, processing recovery efficiency and other relevant factors, in accordance with the rules, regulations and procedures of the Authority and in conformity with generally recognized accounting principles.

8. If an international terminal market provides a representative pricing mechanism for processed metals, polymetallic nodules and semi-processed metals from the nodules, the average price on that market shall be used. In all other cases, the Authority shall, after consulting the contractor, determine a fair price for the said products in accordance with paragraph 9.

9. (a) All costs, expenditures, proceeds and revenues and all determinations of price and value referred to in this article shall be the result of free market or arm's length transactions. In the absence thereof, they shall be determined by the Authority, after consulting the contractor, as though they were the result of free market or arm's length transactions, taking into account relevant transactions in other markets.

(b) In order to ensure compliance with and enforcement of the provisions of this paragraph, the Authority shall be guided by the principles adopted for, and the interpretation given to, arm's length transactions by the Commission on Transnational Corporations of the United Nations, the Group of Experts on Tax Treaties between Developing and Developed Countries and other international organizations, and shall, in its rules, regulations and procedures, specify uniform and internationally acceptable accounting rules and procedures, and the means of selection by the contractor of certified independent accountants acceptable to the Authority for the purpose of carrying out auditing in compliance with those rules, regulations and procedures.

10. The contractor shall make available to the accountants, in accordance with the financial rules, regulations and procedures of the Authority, such financial data as are required to determine compliance with this article.

11. All costs, expenditures, proceeds and revenues, and all prices and values referred to in this article, shall be determined in accordance with generally recognized accounting principles and the financial rules, regulations and procedures of the Authority.

12. Payments to the Authority under paragraphs 5 and 6 shall be made in freely usable currencies or currencies which are freely available and effectively usable on the major foreign exchange markets or, at the contractor's option, in the equivalents of processed metals at market value. The market value shall be determined in accordance with paragraph 5(b). The freely usable currencies and currencies which are freely available and effectively usable on the major foreign exchange markets shall be defined in the rules, regulations and procedures of the Authority in accordance with prevailing international monetary practice.

13. All financial obligations of the contractor to the Authority, as well as all his fees, costs, expenditures, proceeds and revenues referred to in this article, shall be adjusted by expressing them in constant terms relative to a base year.

14. The Authority may, taking into account any recommendations of the Economic Planning Commission and the Legal and Technical Commission, adopt rules, regulations and procedures that provide for incentives, on a uniform and non-discriminatory basis, to contractors to further the objectives set out in paragraph 1.

15. In the event of a dispute between the Authority and a contractor over the interpretation or application of the financial terms of a contract, either party may submit the dispute to binding commercial arbitration, unless both parties agree to settle the dispute by other means, in accordance with article 188, paragraph 2.

Article 14
Transfer of data

1. The operator shall transfer to the Authority, in accordance with its rules, regulations and procedures and the terms and conditions of the plan of work, at time intervals determined by the Authority all data which are both necessary for and relevant to the effective exercise of the powers and functions of the principal organs of the Authority in respect of the area covered by the plan of work.

2. Transferred data in respect of the area covered by the plan of work, deemed proprietary, may only be used for the purposes set forth in this article. Data necessary for the formulation by the Authority of rules, regulations and procedures concerning protection of the marine environment and safety, other than equipment design data, shall not be deemed proprietary.

3. Data transferred to the Authority by prospectors, applicants for contracts or contractors, deemed proprietary, shall not be disclosed by the Authority to the Enterprise or to anyone external to the Authority, but data on the reserved areas may be disclosed to the Enterprise. Such data transferred by such persons to the Enterprise shall not be disclosed by the Enterprise to the Authority or to anyone external to the Authority.

Article 15
Training programmes

The contractor shall draw up practical programmes for the training of personnel of the Authority and developing States, including the participation of such personnel in all activities in the Area which are covered by the contract, in accordance with article 144, paragraph 2.

Article 16
Exclusive right to explore and exploit

The Authority shall, pursuant to Part XI and its rules, regulations and procedures, accord the operator the exclusive right to explore and exploit the area covered by the plan of work in respect of a specified category of resources and shall ensure that no other entity operates in the same area for a different category of resources in a manner which might interfere with the operations of the operator. The operator shall have security of tenure in accordance with article 153, paragraph 6.

Article 17
Rules, regulations and procedures of the Authority

1. The Authority shall adopt and uniformly apply rules, regulations and procedures in accordance with article 160, paragraph 2(f)(ii), and article 162, paragraph 2(o)(ii), for the exercise of its functions as set forth in Part XI on, inter alia, the following matters:

(a) administrative procedures relating to prospecting, exploration and exploitation in the Area;

(b) operations:

(i) size of area;

(ii) duration of operations;

(iii) performance requirements including assurances pursuant to article 4, paragraph 6(c), of this Annex;

(iv) categories of resources;

(v) renunciation of areas;

(vi) progress reports;

(vii) submission of data;

(viii) inspection and supervision of operations;

(ix) prevention of interference with other activities in the marine environment;

(x) transfer of rights and obligations by a contractor;

(xi) procedures for transfer of technology to developing States in accordance with article 144 and for their direct participation;

(xii) mining standards and practices, including those relating to operational safety, conservation of the resources and the protection of the marine environment;

(xiii) definition of commercial production;

(xiv) qualification standards for applicants;

(c) financial matters:

(i) establishment of uniform and non-discriminatory costing and accounting rules and the method of selection of auditors;

(ii) apportionment of proceeds of operations;

(iii) the incentives referred to in article 13 of this Annex;

(d) implementation of decisions taken pursuant to article 151, paragraph 10, and article 164, paragraph 2(d).

2. Rules, regulations and procedures on the following items shall fully reflect the objective criteria set out below:

(a) Size of areas:

The Authority shall determine the appropriate size of areas for exploration which may be up to twice as large as those for exploitation in order to permit intensive exploration operations. The size of area shall be calculated to satisfy the requirements of article 8 of this Annex on reservation of areas as well as stated production requirements consistent with article 151 in accordance with the terms of the contract taking into account the state of the art of technology then available for sea-bed mining and the relevant physical characteristics of the areas. Areas shall be neither smaller nor larger than are necessary to satisfy this objective.

(b) Duration of operations:

(i) Prospecting shall be without time-limit;

(ii) Exploration should be of sufficient duration to permit a thorough survey of the specific area, the design and construction of mining equipment for the area and the design and construction of small and medium-size processing plants for the purpose of testing mining and processing systems;

(iii) The duration of exploitation should be related to the economic life of the mining project, taking into consideration such factors as the depletion of the ore, the useful life of mining equipment and processing facilities and commercial viability. Exploitation should be of sufficient duration to permit commercial extraction of minerals of the area and should include a reasonable time period for construction of

commercial-scale mining and processing systems, during which period commercial production should not be required. The total duration of exploitation, however, should also be short enough to give the Authority an opportunity to amend the terms and conditions of the plan of work at the time it considers renewal in accordance with rules, regulations and procedures which it has adopted subsequent to approving the plan of work.

(c) Performance requirements:

The Authority shall require that during the exploration stage periodic expenditures be made by the operator which are reasonably related to the size of the area covered by the plan of work and the expenditures which would be expected of a bona fide operator who intended to bring the area into commercial production within the time-limits established by the Authority. The required expenditures should not be established at a level which would discourage prospective operators with less costly technology than is prevalently in use. The Authority shall establish a maximum time interval, after the exploration stage is completed and the exploitation stage begins, to achieve commercial production. To determine this interval, the Authority should take into consideration that construction of large-scale mining and processing systems cannot be initiated until after the termination of the exploration stage and the commencement of the exploitation stage. Accordingly, the interval to bring an area into commercial production should take into account the time necessary for this construction after the completion of the exploration stage and reasonable allowance should be made for unavoidable delays in the construction schedule. Once commercial production is achieved, the Authority shall within reasonable limits and taking into consideration all relevant factors require the operator to maintain commercial production throughout the period of the plan of work.

(d) Categories of resources:

In determining the category of resources in respect of which a plan of work may be approved, the Authority shall give emphasis inter alia to the following characteristics:

(i) that certain resources require the use of similar mining methods; and

(ii) that some resources can be developed simultaneously without undue interference between operators developing different resources in the same area.

Nothing in this subparagraph shall preclude the Authority from approving a plan of work with respect to more than one category of resources in the same area to the same applicant.

(e) Renunciation of areas:

The operator shall have the right at any time to renounce without penalty the whole or part of his rights in the area covered by a plan of work.

(f) Protection of the marine environment:

Rules, regulations and procedures shall be drawn up in order to secure effective protection of the marine environment from harmful effects directly resulting from activities in the Area or from shipboard processing immediately above a mine site of minerals derived from that mine site, taking into account the extent to which such harmful effects may directly result from drilling, dredging, coring and excavation and from disposal, dumping and discharge into the marine environment of sediment, wastes or other effluents.

(g) Commercial production:

Commercial production shall be deemed to have begun if an operator engages in sustained large-scale recovery operations which yield a quantity of materials sufficient to indicate clearly that the principal purpose is large-scale production rather than production intended for information gathering, analysis or the testing of equipment or plant.

Article 18
Penalties

1. A contractor's rights under the contract may be suspended or terminated only in the following cases:

(a) if, in spite of warnings by the Authority, the contractor has conducted his activities in such a way as to result in serious, persistent and wilful violations of the fundamental terms of the contract, Part XI and the rules, regulations and procedures of the Authority; or

(b) if the contractor has failed to comply with a final binding decision of the dispute settlement body applicable to him.

2. In the case of any violation of the contract not covered by paragraph 1(a), or in lieu of suspension or termination under paragraph 1(a), the Authority may impose upon the contractor monetary penalties proportionate to the seriousness of the violation.

3. Except for emergency orders under article 162, paragraph 2(w), the Authority may not execute a decision involving monetary penalties, suspension or termination until the contractor has been accorded a reasonable opportunity to exhaust the judicial remedies available to him pursuant to Part XI, section 5.

Article 19
Revision of contract

1. When circumstances have arisen or are likely to arise which, in the opinion of either party, would render the contract inequitable or make it impracticable or impossible to achieve the objectives set out in the contract or in Part XI, the parties shall enter into negotiations to revise it accordingly.

2. Any contract entered into in accordance with article 153, paragraph 3, may be revised only with the consent of the parties.

Article 20
Transfer of rights and obligations

The rights and obligations arising under a contract may be transferred only with the consent of the Authority, and in accordance with its rules, regulations and procedures. The Authority shall not unreasonably withhold consent to the transfer if the proposed transferee is in all respects a qualified applicant and assumes all of the obligations of the transferor and if the transfer does not confer to the transferee a plan of work, the approval of which would be forbidden by article 6, paragraph 3(c), of this Annex.

Article 21
Applicable law

1. The contract shall be governed by the terms of the contract, the rules, regulations and procedures of the Authority, Part XI and other rules of international law not incompatible with this Convention.

2. Any final decision rendered by a court or tribunal having jurisdiction under this Convention relating to the rights and obligations of the Authority and of the contractor shall be enforceable in the territory of each State Party.

3. No State Party may impose conditions on a contractor that are inconsistent with Part XI. However, the application by a State Party to contractors sponsored by it, or to ships flying its flag, of environmental or other laws and regulations more stringent than those in the rules, regulations and procedures of the Authority adopted pursuant to article 17, paragraph 2(f), of this Annex shall not be deemed inconsistent with Part XI.

Article 22
Responsibility

The contractor shall have responsibility or liability for any damage arising out of wrongful acts in the conduct of its operations, account being taken of contributory acts or omissions by the Authority. Similarly, the Authority shall have responsibility or liability for any damage arising out of wrongful acts in the exercise of its powers and functions, including violations under article 168, paragraph 2, account being taken of contributory acts or omissions by the contractor. Liability in every case shall be for the actual amount of damage.

ANNEX IV. STATUTE OF THE ENTERPRISE

Article 1
Purposes

1. The Enterprise is the organ of the Authority which shall carry out activities in the Area directly, pursuant to article 153, paragraph 2 (a), as well as the transporting, processing and marketing of minerals recovered from the Area.

2. In carrying out its purposes and in the exercise of its functions, the Enterprise shall act in accordance with this Convention and the rules, regulations and procedures of the Authority.

3. In developing the resources of the Area pursuant to paragraph 1, the Enterprise shall, subject to this Convention, operate in accordance with sound commercial principles.

Article 2
Relationship to the Authority

1. Pursuant to article 170, the Enterprise shall act in accordance with the general policies of the Assembly and the directives of the Council.

2. Subject to paragraph 1, the Enterprise shall enjoy autonomy in the conduct of its operations.

3. Nothing in this Convention shall make the Enterprise liable for the acts or obligations of the Authority, or make the Authority liable for the acts or obligations of the Enterprise.

Article 3
Limitation of liability

Without prejudice to article 11, paragraph 3, of this Annex, no member of the Authority shall be liable by reason only of its membership for the acts or obligations of the Enterprise.

Article 4
Structure

The Enterprise shall have a Governing Board, a Director-General and the staff necessary for the exercise of its functions.

Article 5
Governing Board

1. The Governing Board shall be composed of 15 members elected by the Assembly in accordance with article 160, paragraph 2(c). In the election of the members of the Board, due regard shall be paid to the principle of equitable geographical distribution. In submitting nominations of candidates for election to the Board, members of the Authority shall bear in mind the need to nominate candidates of the highest standard of competence, with qualifications in relevant fields, so as to ensure the viability and success of the Enterprise.

2. Members of the Board shall be elected for four years and may be re-elected; and due regard shall be paid to the principle of rotation of membership.

3. Members of the Board shall continue in office until their successors are elected. If the office of a member of the Board becomes vacant, the Assembly shall, in accordance with article 160, paragraph 2(c), elect a new member for the remainder of his predecessor's term.

4. Members of the Board shall act in their personal capacity. In the performance of their duties they shall not seek or receive instructions from any government or from any other source. Each member of the Authority shall respect the independent character of the members of the Board and shall refrain from all attempts to influence any of them in the discharge of their duties.

5. Each member of the Board shall receive remuneration to be paid out of the funds of the Enterprise. The amount of remuneration shall be fixed by the Assembly, upon the recommendation of the Council.

6. The Board shall normally function at the principal office of the Enterprise and shall meet as often as the business of the Enterprise may require.

7. Two thirds of the members of the Board shall constitute a quorum.

8. Each member of the Board shall have one vote. All matters before the Board shall be decided by a majority of its members. If a member has a conflict of interest on a matter before the Board he shall refrain from voting on that matter.

9. Any member of the Authority may ask the Board for information in respect of its operations which particularly affect that member. The Board shall endeavour to provide such information.

Article 6
Powers and functions of the Governing Board

The Governing Board shall direct the operations of the Enterprise. Subject to this Convention, the Governing Board shall exercise the powers necessary to fulfil the purposes of the Enterprise, including powers:

(a) to elect a Chairman from among its members;

(b) to adopt its rules of procedure;

(c) to draw up and submit formal written plans of work to the Council in accordance with article 153, paragraph 3, and article 162, paragraph 2(j);

(d) to develop plans of work and programmes for carrying out the activities specified in article 170;

(e) to prepare and submit to the Council applications for production authorizations in accordance with article 151, paragraphs 2 to 7;

(f) to authorize negotiations concerning the acquisition of technology, including those provided for in Annex III, article 5, paragraph 3 (a), (c) and (d), and to approve the results of those negotiations;

(g) to establish terms and conditions, and to authorize negotiations, concerning joint ventures and other forms of joint arrangements referred to in Annex III, articles 9 and 11, and to approve the results of such negotiations;

(h) to recommend to the Assembly what portion of the net income of the Enterprise should be retained as its reserves in accordance with article 160, paragraph 2(f), and article 10 of this Annex;

(i) to approve the annual budget of the Enterprise;

(j) to authorize the procurement of goods and services in accordance with article 12, paragraph 3, of this Annex;

(k) to submit an annual report to the Council in accordance with article 9 of this Annex;

(l) to submit to the Council for the approval of the Assembly draft rules in respect of the organization, management, appointment and dismissal of the staff of the Enterprise and to adopt regulations to give effect to such rules;

(m) to borrow funds and to furnish such collateral or other security as it may determine in accordance with article 11, paragraph 2, of this Annex;

(n) to enter into any legal proceedings, agreements and transactions and to take any other actions in accordance with article 13 of this Annex;

(o) to delegate, subject to the approval of the Council, any non-discretionary powers to the Director-General and to its committees.

Article 7
Director-General and staff of the Enterprise

1. The Assembly shall, upon the recommendation of the Council and the nomination of the Governing Board, elect the Director-General of the Enterprise who shall not be a member of the Board. The Director-General shall hold office for a fixed term, not exceeding five years, and may be re-elected for further terms.

2. The Director-General shall be the legal representative and chief executive of the Enterprise and shall be directly responsible to the Board for the conduct of the operations of the Enterprise. He shall be responsible for the organization, management, appointment and dismissal of the staff of the Enterprise in accordance with the rules and regulations referred to in article 6, subparagraph (l), of this Annex. He shall participate, without the right to vote, in the meetings of the Board and may participate, without the right to vote, in the meetings of the Assembly and the Council when these organs are dealing with matters concerning the Enterprise.

3. The paramount consideration in the recruitment and employment of the staff and in the determination of their conditions of service shall be the necessity of securing the highest standards of efficiency and of technical competence. Subject to this consideration, due regard shall be paid to the importance of recruiting the staff on an equitable geographical basis.

4. In the performance of their duties the Director-General and the staff shall not seek or receive instructions from any government or from any other source external to the Enterprise. They shall refrain from any action which might reflect on their position as international officials of the Enterprise responsible only to the Enterprise. Each State Party undertakes to respect the exclusively international character of the responsibilities of the Director-General and the staff and not to seek to influence them in the discharge of their responsibilities.

5. The responsibilities set forth in article 168, paragraph 2, are equally applicable to the staff of the Enterprise.

Article 8
Location

The Enterprise shall have its principal office at the seat of the Authority. The Enterprise may establish other offices and facilities in the territory of any State Party with the consent of that State Party.

Article 9
Reports and financial statements

1. The Enterprise shall, not later than three months after the end of each financial year, submit to the Council for its consideration an annual report containing an audited statement of its accounts and shall transmit to the Council at appropriate intervals a summary statement of its financial position and a profit and loss statement showing the results of its operations.

2. The Enterprise shall publish its annual report and such other reports as it finds appropriate.

3. All reports and financial statements referred to in this article shall be distributed to the members of the Authority.

Article 10
Allocation of net income

1. Subject to paragraph 3, the Enterprise shall make payments to the Authority under Annex III, article 13, or their equivalent.

2. The Assembly shall, upon the recommendation of the Governing Board, determine what portion of the net income of the Enterprise shall be retained as reserves of the Enterprise. The remainder shall be transferred to the Authority.

3. During an initial period required for the Enterprise to become self-supporting, which shall not exceed 10 years from the commencement of commercial production by it, the Assembly shall exempt the Enterprise from the payments referred to in paragraph 1, and shall leave all of the net income of the Enterprise in its reserves.

Article 11
Finances

1. The funds of the Enterprise shall include:

(a) amounts received from the Authority in accordance with article 173, paragraph 2(b);

(b) voluntary contributions made by States Parties for the purpose of financing activities of the Enterprise;

(c) amounts borrowed by the Enterprise in accordance with paragraphs 2 and 3;

(d) income of the Enterprise from its operations;

(e) other funds made available to the Enterprise to enable it to commence operations as soon as possible and to carry out its functions.

2. (a) The Enterprise shall have the power to borrow funds and to furnish such collateral or other security as it may determine. Before making a public sale of its obligations in the financial markets or currency of a State Party, the Enterprise shall obtain the approval of that State Party. The total amount of borrowings shall be approved by the Council upon the recommendation of the Governing Board.

(b) States Parties shall make every reasonable effort to support applications by the Enterprise for loans on capital markets and from international financial institutions.

3. (a) The Enterprise shall be provided with the funds necessary to explore and exploit one mine site, and to transport, process and market the minerals recovered therefrom and the nickel, copper, cobalt and manganese obtained, and to meet its initial administrative expenses. The amount of the said funds, and the criteria and factors for its adjustment, shall be included by the preparatory Commission in the draft rules, regulations and procedures of the Authority.

(b) All States Parties shall make available to the Enterprise an amount equivalent to one half of the funds referred to in subparagraph (a) by way of long-term interest-free loans in accordance with the scale of assessments for the United Nations regular budget in force at the time when the assessments are made, adjusted to take into account the States which are not members of the United Nations. Debts incurred by the Enterprise in raising the other half of the funds shall be guaranteed by all States Parties in accordance with the same scale.

(c) If the sum of the financial contributions of States Parties is less than the funds to be provided to the Enterprise under subparagraph (a), the Assembly shall, at its first session, consider the extent of the shortfall and adopt by consensus measures for dealing with this shortfall, taking into account the obligation of States Parties under subparagraphs (a) and (b) and any recommendations of the Preparatory Commission.

(d) (i) Each State Party shall, within 60 days after the entry into force of this Convention, or within 30 days after the deposit of its instrument of ratification or accession, whichever is later, deposit with the Enterprise irrevocable, non-negotiable, non-interest-bearing promissory notes in the amount of the share of such State Party of interest-free loans pursuant to subparagraph (b).

(ii) The Board shall prepare, at the earliest practicable date after this Convention enters into force, and thereafter at annual or other appropriate intervals, a schedule of the magnitude and timing of its requirements for the funding of its administrative expenses and for activities carried out by the Enterprise in accordance with article 170 and article 12 of this Annex.

(iii) The States Parties shall, thereupon, be notified by the Enterprise, through the Authority, of their respective shares of the funds in accordance with subparagraph (b), required for such expenses. The Enterprise shall encash such amounts of the promissory notes as may be required to meet the expenditure referred to in the schedule with respect to interest-free loans.

(iv) States Parties shall, upon receipt of the notification, make available their respective shares of debt guarantees for the Enterprise in accordance with subparagraph (b).

(e) (i) If the Enterprise so requests, State Parties may provide debt guarantees in addition to those provided in accordance with the scale referred to in subparagraph (b).

(ii) In lieu of debt guarantees, a State Party may make a voluntary contribution to the Enterprise in an amount equivalent to that portion of the debts which it would otherwise be liable to guarantee.

(f) Repayment of the interest-bearing loans shall have priority over the repayment of the interest-free loans. Repayment of interest-free loans shall be in accordance with a schedule adopted by the Assembly, upon the recommendation of the Council and the advice of the Board. In the exercise of this function the Board shall be guided by the relevant provisions of the rules, regulations and procedures of the Authority, which shall take into account the paramount importance of ensuring the effective functioning of the Enterprise and, in particular, ensuring its financial independence.

(g) Funds made available to the Enterprise shall be in freely usable currencies or currencies which are freely available and effectively usable in the major foreign exchange markets. These currencies shall be defined in the rules, regulations and procedures of the Authority in accordance with prevailing international monetary practice. Except as provided in paragraph 2, no State Party shall maintain or impose restrictions on the holding, use or exchange by the Enterprise of these funds.

(h) "Debt guarantee" means a promise of a State Party to creditors of the Enterprise to pay, pro rata in accordance with the appropriate scale, the financial obligations of the Enterprise covered by the guarantee following notice by the creditors to the State Party of a default by the Enterprise. Procedures for the payment of those obligations shall be in conformity with the rules, regulations and procedures of the Authority.

4. The funds, assets and expenses of the Enterprise shall be kept separate from those of the Authority. This article shall not prevent the Enterprise from making arrangements with the Authority regarding facilities, personnel and services and arrangements for reimbursement of administrative expenses paid by either on behalf of the other.

5. The records, books and accounts of the Enterprise, including its annual financial statements, shall be audited annually by an independent auditor appointed by the Council.

Article 12
Operations

1. The Enterprise shall propose to the Council projects for carrying out activities in accordance with article 170. Such proposals shall include a formal written plan of work for activities in the Area in accordance with article 153, paragraph 3, and all such other information and data as may be required from time to time for its appraisal by the Legal and Technical Commission and approval by the Council.

2. Upon approval by the Council, the Enterprise shall execute the project on the basis of the formal written plan of work referred to in paragraph 1.

3. (a) If the Enterprise does not possess the goods and services required for its operations it may procure them. For that purpose, it shall issue invitations to tender and award contracts to bidders offering the best combination of quality, price and delivery time.

(b) If there is more than one bid offering such a combination, the contract shall be awarded in accordance with:

(i) the principle of non-discrimination on the basis of political or other considerations not relevant to the carrying out of operations with due diligence and efficiency; and

(ii) guidelines approved by the Council with regard to the preferences to be accorded to goods and services originating in developing States, including the land-locked and geographically disadvantaged among them.

(c) The Governing Board may adopt rules determining the special circumstances in which the requirement of invitations to bid may, in the best interests of the Enterprise, be dispensed with.

4. The Enterprise shall have title to all minerals and processed substances produced by it.

5. The Enterprise shall sell its products on a non-discriminatory basis. It shall not give non-commercial discounts.

6. Without prejudice to any general or special power conferred on the Enterprise under any other provision of this Convention, the Enterprise shall exercise such powers incidental to its business as shall be necessary.

7. The Enterprise shall not interfere in the political affairs of any State Party; nor shall it be influenced in its decisions by the political character of the State Party concerned. Only commercial considerations shall be relevant to its decisions, and these considerations shall be weighed impartially in order to carry out the purposes specified in article 1 of this Annex.

Article 13
Legal status, privileges and immunities

1. To enable the Enterprise to exercise its functions, the status, privileges and immunities set forth in this article shall be accorded to the Enterprise in the territories of States Parties. To give effect to this principle the Enterprise and States Parties may, where necessary, enter into special agreements.

2. The Enterprise shall have such legal capacity as is necessary for the exercise of its functions and the fulfilment of its purposes and, in particular, the capacity:

(a) to enter into contracts, joint arrangements or other arrangements, including agreements with States and international organizations;

(b) to acquire, lease, hold and dispose of immovable and movable property;

(c) to be a party to legal proceedings.

3. (a) Actions may be brought against the Enterprise only in a court of competent jurisdiction in the territory of a State Party in which the Enterprise:

(i) has an office or facility;

(ii) has appointed an agent for the purpose of accepting service or notice of process;

(iii) has entered into a contract for goods or services;

(iv) has issued securities; or

(v) is otherwise engaged in commercial activity.

(b) The property and assets of the Enterprise, wherever located and by whomsoever held, shall be immune from all forms of seizure, attachment or execution before the delivery of final judgment against the Enterprise.

4. (a) The property and assets of the Enterprise, wherever located and by whomsoever held, shall be immune from requisition, confiscation, expropriation or any other form of seizure by executive or legislative action.

(b) The property and assets of the Enterprise, wherever located and by whomsoever held, shall be free from discriminatory restrictions, regulations, controls and moratoria of any nature.

(c) The Enterprise and its employees shall respect local laws and regulations in any State or territory in which the Enterprise or its employees may do business or otherwise act.

(d) States Parties shall ensure that the Enterprise enjoys all rights, privileges and immunities accorded by them to entities conducting commercial activities in their territories. These rights, privileges and immunities shall be accorded to the Enterprise on no less favorable a basis than that on which they are accorded to entities engaged in similar commercial activities. If special privileges are provided by States Parties for developing States or their commercial entities, the Enterprise shall enjoy those privileges on a similarly preferential basis.

(e) States Parties may provide special incentives, rights, privileges and immunities to the Enterprise without the obligation to provide such incentives, rights, privileges and immunities to other commercial entities.

The Enterprise shall negotiate with the host countries in which its offices and facilities are located for exemption from direct and indirect taxation.

6. Each State Party shall take such action as is necessary for giving effect in terms of its own law to the principles set forth in this Annex and shall inform the Enterprise of the specific action which it has taken.

7. The Enterprise may waive any of the privileges and immunities conferred under this article or in the special agreements referred to in paragraph 1 to such extent and upon such conditions as it may determine.

ANNEX V. CONCILIATION

SECTION 1. CONCILIATION PROCEDURE PURSUANT TO SECTION 1 OF PART XV

Article 1
Institution of proceedings

If the parties to a dispute have agreed, in accordance with article 284, to submit it to conciliation under this section, any such party may institute the proceedings by written notification addressed to the other party or parties to the dispute.

Article 2
List of conciliators

A list of conciliators shall be drawn up and maintained by the Secretary-General of the United Nations. Every State Party shall be entitled to nominate four conciliators, each of whom shall be a person enjoying the highest reputation for fairness, competence and integrity. The names of the persons so nominated shall constitute the list. If at any time the conciliators nominated by a State Party in the list so constituted shall be fewer than four, that State Party shall be entitled to make further nominations as necessary. The name of a conciliator shall remain on the list until withdrawn by the State Party which made the nomination, provided that such conciliator shall continue to serve on any conciliation commission to which that conciliator has been appointed until the completion of the proceedings before that commission.

Article 3
Constitution of conciliation commission

The conciliation commission shall, unless the parties otherwise agree, be constituted as follows:

(a) Subject to subparagraph (g), the conciliation commission shall consist of five members.

(b) The party instituting the proceedings shall appoint two conciliators to be chosen preferably from the list referred to in article 2 of this Annex, one of whom may be its national, unless the parties otherwise agree. Such appointments shall be included in the notification referred to in article 1 of this Annex.

(c) The other party to the dispute shall appoint two conciliators in the manner set forth in subparagraph (b) within 21 days of receipt of the notification referred to in article 1 of this Annex. If the appointments are not made within that period, the party instituting the proceedings may, within one week of the expiration of that period, either terminate the proceedings by notification addressed to the other party or request the Secretary-General of the United Nations to make the appointments in accordance with subparagraph (e).

(d) Within 30 days after all four conciliators have been appointed, they shall appoint a fifth conciliator chosen from the list referred to in article 2 of this Annex, who shall be chairman. If the appointment is not made within that period, either party may, within one week of the expiration of that period, request the Secretary-General of the United Nations to make the appointment in accordance with subparagraph (e).

(e) Within 30 days of the receipt of a request under subparagraph (c) or (d), the Secretary-General of the United Nations shall make the necessary appointments from the list referred to in article 2 of this Annex in consultation with the parties to the dispute.

(f) Any vacancy shall be filled in the manner prescribed for the initial appointment.

(g) Two or more parties which determine by agreement that they are in the same interest shall appoint two conciliators jointly. Where two or more parties have separate interests or there is a disagreement as to whether they are of the same interest, they shall appoint conciliators separately.

(h) In disputes involving more than two parties having separate interests, or where there is disagreement as to whether they are of the same interest, the parties shall apply subparagraphs (a) to (f) in so far as possible.

Article 4
Procedure

The conciliation commission shall, unless the parties otherwise agree, determine its own procedure. The commission may, with the consent of the parties to the dispute, invite any State Party to submit to it its views orally or in writing. Decisions of the commission regarding procedural matters, the report and recommendations shall be made by a majority vote of its members.

Article 5
Amicable settlement

The commission may draw the attention of the parties to any measures which might facilitate an amicable settlement of the dispute.

Article 6
Functions of the commission

The commission shall hear the parties, examine their claims and objections, and make proposals to the parties with a view to reaching an amicable settlement.

Article 7
Report

1. The commission shall report within 12 months of its constitution. Its report shall record any agreements reached and, failing agreement, its conclusions on all questions of fact or law relevant to the matter in dispute and such recommendations as the commission may deem appropriate for an amicable settlement. The report shall be deposited with the Secretary-General of the United Nations and shall immediately be transmitted by him to the parties to the dispute.

2. The report of the commission, including its conclusions or recommendations, shall not be binding upon the parties.

Article 8
Termination

The conciliation proceedings are terminated when a settlement has been reached, when the parties have accepted or one party has rejected the recommendations of the report by written notification addressed to the Secretary-General of the United Nations, or when a period of three months has expired from the date of transmission of the report to the parties.

Article 9
Fees and expenses

The fees and expenses of the commission shall be borne by the parties to the dispute.

Article 10
Right of parties to modify procedure

The parties to the dispute may by agreement applicable solely to that dispute modify any provision of this Annex.

SECTION 2. COMPULSORY SUBMISSION TO CONCILIATION PROCEDURE PURSUANT TO SECTION 3 OF PART XV

Article 11
Institution of proceedings

1. Any party to a dispute which, in accordance with Part XV, section 3, may be submitted to conciliation under this section, may institute the proceedings by written notification addressed to the other party or parties to the dispute.

2. Any party to the dispute, notified under paragraph 1, shall be obliged to submit to such proceedings.

Article 12
Failure to reply or to submit to conciliation

The failure of a party or parties to the dispute to reply to notification of institution of proceedings or to submit to such proceedings shall not constitute a bar to the proceedings.

Article 13
Competence

A disagreement as to whether a conciliation commission acting under this section has competence shall be decided by the commission.

Article 14
Application of section 1

Articles 2 to 10 of section 1 of this Annex apply subject to this section.

ANNEX VI. STATUTE OF THE INTERNATIONAL TRIBUNAL FOR THE LAW OF THE SEA

Article 1
General provisions

1. The International Tribunal for the Law of the Sea is constituted and shall function in accordance with the provisions of this Convention and this Statute.

2. The seat of the Tribunal shall be in the Free and Hanseatic City of Hamburg in the Federal Republic of Germany.

3. The Tribunal may sit and exercise its functions elsewhere whenever it considers this desirable.

4. A reference of a dispute to the Tribunal shall be governed by the provisions of Parts XI and XV.

SECTION 1. ORGANIZATION OF THE TRIBUNAL

Article 2
Composition

1. The Tribunal shall be composed of a body of 21 independent members elected from among persons enjoying the highest reputation for fairness and integrity and of recognized competence in the field of the law of the sea.

2. In the Tribunal as a whole the representation of the principal legal systems of the world and equitable geographical distribution shall be assured.

Article 3
Membership

1. No two members of the Tribunal may be nationals of the same State. A person who for the purposes of membership in the Tribunal could be regarded as a national of more than one State shall be deemed to be a national of the one in which he ordinarily exercises civil and political rights.

2. There shall be no fewer than three members from each geographical group as established by the General Assembly of the United Nations.

Article 4
Nominations and elections

1. Each State Party may nominate not more than two persons having the qualifications prescribed in article 2 of this Annex. The members of the Tribunal shall be elected from the list of persons thus nominated.

2. At least three months before the date of the election, the Secretary-General of the United Nations in the case of the first election and the Registrar of the Tribunal in the case of subsequent elections shall address a written invitation to the States Parties to submit their nominations for members of the Tribunal within two months. He shall prepare a list in alphabetical order of all the persons thus nominated, with an indication of the States Parties which have nominated them, and shall submit it to the States Parties before the seventh day of the last month before the date of each election.

3. The first election shall be held within six months of the date of entry into force of this Convention.

4. The members of the Tribunal shall be elected by secret ballot. Elections shall be held at a meeting of the States Parties convened by the Secretary-General of the United Nations in the case of the first election and by a procedure agreed to by the States Parties in the case of subsequent elections. Two thirds of the States Parties shall constitute a quorum at that meeting. The persons elected to the Tribunal shall be those nominees who obtain the largest number of votes and a two-thirds majority of the States Parties present and voting, provided that such majority includes a majority of the States Parties.

Article 5
Term of office

1. The members of the Tribunal shall be elected for nine years and may be re-elected; provided, however, that of the members elected at the first election, the terms of seven members shall expire at the end of three years and the terms of seven more members shall expire at the end of six years.

2. The members of the Tribunal whose terms are to expire at the end of the above-mentioned initial periods of three and six years shall be chosen by lot to be drawn by the Secretary-General of the United Nations immediately after the first election.

3. The members of the Tribunal shall continue to discharge their duties until their places have been filled. Though replaced, they shall finish any proceedings which they may have begun before the date of their replacement.

4. In the case of the resignation of a member of the Tribunal, the letter of resignation shall be addressed to the President of the Tribunal. The place becomes vacant on the receipt of that letter.

Article 6
Vacancies

1. Vacancies shall be filled by the same method as that laid down for the first election, subject to the following provision: the Registrar shall, within one month of the occurrence of the vacancy, proceed to issue the invitations provided for in article 4 of this Annex, and the date of the election shall be fixed by the President of the Tribunal after consultation with the States Parties.

2. A member of the Tribunal elected to replace a member whose term of office has not expired shall hold office for the remainder of his predecessor's term.

Article 7
Incompatible activities

1. No member of the Tribunal may exercise any political or administrative function, or associate actively with or be financially interested in any of the operations of any enterprise concerned with the exploration for or exploitation of the resources of the sea or the sea-bed or other commercial use of the sea or the sea-bed.

2. No member of the Tribunal may act as agent, counsel or advocate in any case.

3. Any doubt on these points shall be resolved by decision of the majority of the other members of the Tribunal present.

Article 8
Conditions relating to participation of members in a particular case

1. No member of the Tribunal may participate in the decision of any case in which he has previously taken part as agent, counsel or advocate for one of the parties, or as a member of a national or international court or tribunal, or in any other capacity.

2. If, for some special reason, a member of the Tribunal considers that he should not take part in the decision of a particular case, he shall so inform the President of the Tribunal.

3. If the President considers that for some special reason one of the members of the Tribunal should not sit in a particular case, he shall give his notice accordingly.

4. Any doubt on these points shall be resolved by decision of the majority of the other members of the Tribunal present.

Article 9
Consequence of ceasing to fulfil required conditions

If, in the unanimous opinion of the other members of the Tribunal, a member has ceased to fulfil the required conditions, the President of the Tribunal shall declare the seat vacant.

Article 10
Privileges and immunities

The members of the Tribunal, when engaged on the business of the Tribunal, shall enjoy diplomatic privileges and immunities.

Article 11
Solemn declaration by members

Every member of the Tribunal shall, before taking up his duties, make a solemn declaration in open session that he will exercise his powers impartially and conscientiously.

Article 12
President, Vice-President and Registrar

1. The Tribunal shall elect its President and Vice-President for three years; they may be re-elected.

2. The Tribunal shall appoint its Registrar and may provide for the appointment of such other officers as may be necessary.

3. The President and the Registrar shall reside at the seat of the Tribunal.

Article 13
Quorum

1. All available members of the Tribunal shall sit; a quorum of 11 elected members shall be required to constitute the Tribunal.

2. Subject to article 17 of this Annex, the Tribunal shall determine which members are available to constitute the Tribunal for the consideration of a particular dispute, having regard to the effective functioning of the chambers as provided for in articles 14 and 15 of this Annex.

3. All disputes and applications submitted to the Tribunal shall be heard and determined by the Tribunal, unless article 14 of this Annex applies, or the parties request that it shall be dealt with in accordance with article 15 of this Annex.

Article 14
Sea-Bed Disputes Chamber

A Sea-Bed Disputes Chamber shall be established in accordance with the provisions of section 4 of this Annex. Its jurisdiction, powers and functions shall be as provided for in Part XI, section 5.

Article 15
Special chambers

1. The Tribunal may form such chambers, composed of three or more of its elected members, as it considers necessary for dealing with particular categories of disputes.

2. The Tribunal shall form a chamber for dealing with a particular dispute submitted to it if the parties so request. The composition of such a chamber shall be determined by the Tribunal with the approval of the parties.

3. With a view to the speedy dispatch of business, the Tribunal shall form annually a chamber composed of five of its elected members which may hear and determine disputes by summary procedure. Two alternative members shall be selected for the purpose of replacing members who are unable to participate in a particular proceeding.

4. Disputes shall be heard and determined by the chambers provided for in this article if the parties so request.

5. A judgment given by any of the chambers provided for in this article and in article 14 of this Annex shall be considered as rendered by the Tribunal.

Article 16
Rules of the Tribunal

The Tribunal shall frame rules for carrying out its functions. In particular it shall lay down rules of procedure.

Article 17
Nationality of members

1. Members of the Tribunal of the nationality of any of the parties to a dispute shall retain their right to participate as members of the Tribunal.

2. If the Tribunal, when hearing a dispute, includes upon the bench a member of the nationality of one of the parties, any other party may choose a person to participate as a member of the Tribunal.

3. If the Tribunal, when hearing a dispute, does not include upon the bench a member of the nationality of the parties, each of those parties may choose a person to participate as a member of the Tribunal.

4. This article applies to the chambers referred to in articles 14 and 15 of this Annex. In such cases, the President, in consultation with the parties, shall request specified members of the Tribunal forming the chamber, as many as necessary, to give place to the members of the Tribunal of the nationality of the parties concerned, and, failing such, or if they are unable to be present, to the members specially chosen by the parties.

5. Should there be several parties in the same interest, they shall, for the purpose of the preceding provisions, be considered as one party only. Any doubt on this point shall be settled by the decision of the Tribunal.

6. Members chosen in accordance with paragraphs 2, 3 and 4 shall fulfil the conditions required by articles 2, 8 and 11 of this Annex. They shall participate in the decision on terms of complete equality with their colleagues.

Article 18
Remuneration of members

1. Each elected member of the Tribunal shall receive an annual allowance and, for each day on which he exercises his functions, a special allowance, provided that in any year the total sum payable to any member as special allowance shall not exceed the amount of the annual allowance.

2. The President shall receive a special annual allowance.

3. The Vice-President shall receive a special allowance for each day on which he acts as President.

4. The members chosen under article 17 of this Annex, other than elected members of the Tribunal, shall receive compensation for each day on which they exercise their functions.

5. The salaries, allowances and compensation shall be determined from time to time at meetings of the States Parties, taking into account the work load of the Tribunal. They may not be decreased during the term of office.

6. The salary of the Registrar shall be determined at meetings of the States Parties, on the proposal of the Tribunal.

7. Regulations adopted at meetings of the States Parties shall determine the conditions under which retirement pensions may be given to members of the Tribunal and to the Registrar, and the conditions under which members of the Tribunal and Registrar shall have their travelling expenses refunded.

8. The salaries, allowances, and compensation shall be free of all taxation.

Article 19
Expenses of the Tribunal

SECTION 2. COMPETENCE

Article 20
Access to the Tribunal

1. The Tribunal shall be open to States Parties.

2. The Tribunal shall be open to entities other than States Parties in any case expressly provided for in Part XI or in any case submitted pursuant to any other agreement conferring jurisdiction on the Tribunal which is accepted by all the parties to that case.

Article 21
Jurisdiction

The jurisdiction of the Tribunal comprises all disputes and all applications submitted to it in accordance with this convention and all matters specifically provided for in any other agreement which confers jurisdiction on the Tribunal.

Article 22
Reference of disputes subject to other agreements

If all the parties to a treaty or convention already in force and concerning the subject-matter covered by this Convention so agree, any disputes concerning the interpretation or application of such treaty or convention may, in accordance with such agreement, be submitted to the Tribunal.

Article 23
Applicable law

The Tribunal shall decide all disputes and applications in accordance with article 293.

SECTION 3. PROCEDURE

Article 24
Institution of proceedings

1. Disputes are submitted to the Tribunal, as the case may be, either by notification of a special agreement or by written application, addressed to the Registrar. In either case, the subject of the dispute and the parties shall be indicated.

2. The Registrar shall forthwith notify the special agreement or the application to all concerned.

3. The Registrar shall also notify all States Parties.

Article 25
Provisional measures

1. In accordance with article 290, the Tribunal and its Sea-Bed Disputes Chamber shall have the power to prescribe provisional measures.

2. If the Tribunal is not in session or a sufficient number of members is not available to constitute a quorum, the provisional measures shall be prescribed by the chamber of summary procedure formed under article 15, paragraph 3, of this Annex. Notwithstanding article 15, paragraph 4, of this Annex, such provisional measures may be adopted at the request of any party to the dispute. They shall be subject to review and revision by the Tribunal.

Article 26
Hearing

1. The hearing shall be under the control of the President or, if he is unable to preside, of the Vice-President. If neither is able to preside, the senior judge present of the Tribunal shall preside.

2. The hearing shall be public, unless the Tribunal decides otherwise or unless the parties demand that the public be not admitted.

Article 27
Conduct of case

The Tribunal shall make orders for the conduct of the case, decide the form and time in which each party must conclude its arguments, and make all arrangements connected with the taking of evidence.

Article 28
Default

When one of the parties does not appear before the Tribunal or fails to defend its case, the other party may request the Tribunal to continue the proceedings and make its decision. Absence of a party or failure of a party to defend its case shall not constitute a bar to the proceedings. Before making its decision, the Tribunal must satisfy itself not only that it has jurisdiction over the dispute, but also that the claim is well founded in fact and law.

Article 29
Majority for decision

1. All questions shall be decided by a majority of the members of the Tribunal who are present.

2. In the event of an equality of votes, the President or the member of the Tribunal who acts in his place shall have a casting vote.

Article 30
Judgment

1. The judgment shall state the reasons on which it is based.

2. It shall contain the names of the members of the Tribunal who have taken part in the decision.

3. If the judgment does not represent in whole or in part the unanimous opinion of the members of the Tribunal, any member shall be entitled to deliver a separate opinion.

4. The judgment shall be signed by the President and by the Registrar. It shall be read in open court, due notice having been given to the parties to the dispute.

Article 31
Request to intervene

1. Should a state Party consider that it has an interest of a legal nature which may be affected by the decision in any dispute, it may submit a request to the Tribunal to be permitted to intervene.

2. It shall be for the Tribunal to decide upon this request.

3. If a request to intervene is granted, the decision of the Tribunal in respect of the dispute shall be binding upon the intervening State Party in so far as it relates to matters in respect of which that State Party intervened.

Article 32
Right to intervene in cases of interpretation or application

1. Whenever the interpretation or application of this Convention is in question, the Registrar shall notify all States Parties forthwith.

2. Whenever pursuant to article 21 or 22 of this Annex the interpretation or application of an international agreement is in question, the Registrar shall notify all the parties to the agreement.

3. Every party referred to in paragraphs 1 and 2 has the right to intervene in the proceedings; if it uses this right, the interpretation given by the judgment will be equally binding upon it.

Article 33
Finality and binding force of decisions

1. The decision of the Tribunal is final and shall be complied with by all the parties to the dispute.

2. The decision shall have no binding force except between the parties in respect of that particular dispute.

3. In the event of dispute as to the meaning or scope of the decision, the Tribunal shall construe it upon the request of any party.

Article 34
Costs

Unless otherwise decided by the Tribunal, each party shall bear its own costs.

SECTION 4. SEA-BED DISPUTES CHAMBER

Article 35
Composition

1. The Sea-Bed Disputes Chamber referred to in article 14 of this Annex shall be composed of 11 members, selected by a majority of the elected members of the Tribunal from among them.

2. In the selection of the members of the Chamber, the representation of the principal legal systems of the world and equitable geographical distribution shall be assured. The Assembly of the Authority may adopt recommendations of a general nature relating to such representation and distribution.

3. The members of the Chamber shall be selected every three years and may be selected for a second term.

4. The Chamber shall elect its President from among its members, who shall serve for the term for which the Chamber has been selected.

5. If any proceedings are still pending at the end of any three-year period for which the Chamber has been selected, the Chamber shall complete the proceedings in its original composition.

6. If a vacancy occurs in the Chamber, the Tribunal shall select a successor from among its elected members, who shall hold office for the remainder of his predecessor's term.

7. A quorum of seven of the members selected by the Tribunal shall be required to constitute the Chamber.

Article 36
Ad Hoc Chambers

1. The Sea-Bed Disputes Chamber shall form an ad hoc chamber, of three of its members, for dealing with a particular dispute submitted to it in accordance with article 188, paragraph 1(b). The composition of such a chamber shall be determined by the Sea-Bed Disputes Chamber with the approval of the parties.

2. If the parties do not agree on the composition of an ad hoc chamber, each party to the dispute shall appoint one member, and the third member shall be appointed by them in agreement. If they disagree, or if any party fails to make an appointment, the President of the Sea-Bed Disputes Chamber shall promptly make the appointment or appointments from among its members, after consultation with the parties.

3. Members of the ad hoc chamber must not be in the service of, or nationals of, any of the parties to the dispute.

Article 37
Access

The Chamber shall be open to the States Parties, the Authority and the other entities referred to in Part XI, section 5.

Article 38
Applicable law

In addition to the provisions of article 293, the Chamber shall apply:

(a) the rules, regulations and procedures of the Authority adopted in accordance with this Convention; and

(b) the terms of contracts concerning activities in the Area in matters relating to those contracts.

Article 39
Enforcement of decisions of the Chamber

The decisions of the Chamber shall be enforceable in the territories of the States Parties in the same manner as judgments or orders of the highest court of the State Party in whose territory the enforcement is sought.

Article 40
Applicability of other sections of this Annex

1. The other sections of this Annex which are not incompatible with this section apply to the Chamber.

2. In the exercise of its functions relating to advisory opinions, the Chamber shall be guided by the provisions of this Annex relating to procedure before the Tribunal to the extent to which it recognizes them to be applicable.

SECTION 5. AMENDMENTS

Article 41
Amendments

1. Amendments to this Annex, other than amendments to section 4, may be adopted only in accordance with article 313 or by consensus at a conference convened in accordance with this Convention.

2. Amendments to section 4 may be adopted only in accordance with article 314.

3. The Tribunal may propose such amendments to this Statute as it say consider necessary, by written communications to the States Parties for their consideration in conformity with paragraphs 1 and 2.

ANNEX VII. ARBITRATION

Article 1
Institution of proceedings

Subject to the provisions of Part XV, any party to a dispute may submit the dispute to the arbitral procedure provided for in this Annex by written notification addressed to the other party or parties to the dispute. The notification shall be accompanied by a statement of the claim and the grounds on which it is based.

Article 2
List of arbitrators

1. A list of arbitrators shall be drawn up and maintained by the Secretary-General of the United Nations. Every State Party shall be entitled to nominate four arbitrators, each of whom shall be a person experienced in maritime affairs and enjoying the highest reputation for fairness, competence end integrity. The names of the persons so nominated shall constitute the list.

2. If at any time the arbitrators nominated by a State Party in the list so constituted shall be fewer than four, that State Party shall be entitled to make further nominations as necessary.

3. The name of an arbitrator shall remain on the list until withdrawn by the State Party which made the nomination, provided that such arbitrator shall continue to serve on any arbitral tribunal to which that arbitrator has been appointed until the completion of the proceedings before that arbitral tribunal.

Article 3
Constitution of arbitral tribunal

For the purpose of proceedings under this Annex, the arbitral tribunal shall, unless the parties otherwise agree, be constituted as follows:

(a) Subject to subparagraph (g), the arbitral tribunal shall consist of five members.

(b) The party instituting the proceedings shall appoint one member to be chosen preferably from the list referred to in article 2 of this Annex, who may be its national. The appointment shall be included in the notification referred to in article 1 of this Annex.

(c) The other party to the dispute shall, within 30 days of receipt of the notification referred to in article 1 of this Annex, appoint one member to be chosen preferably from the list, who may be its national. If the appointment is not made within that period, the party instituting the proceedings may, within two weeks of the expiration of that period, request that the appointment be made in accordance with subparagraph (e).

(d) The other three members shall be appointed by agreement between the parties. They shall be chosen preferably from the list and shall be nationals of third States unless the parties otherwise agree. The parties to the dispute shall appoint the President of the arbitral tribunal from among those three members. If, within 60 days of receipt of the notification referred to in article 1 of this Annex, the parties are unable to reach agreement on the appointment of one or more of the members of the tribunal to be appointed by agreement, or on the appointment of the President, the remaining appointment or appointments shall be made in accordance with subparagraph (e), at the request of a party to the dispute. Such request shall be made within two weeks of the expiration of the aforementioned 60-day period.

(e) Unless the parties agree that any appointment under subparagraphs (c) and (d) be made by a person or a third State chosen by the parties, the President of the International Tribunal for the Law of the Sea shall make the necessary appointments. If the President is unable to act under this subparagraph or is a national of one of the parties to the dispute, the appointment shall be made by the next senior member of the International Tribunal for the Law of the Sea who is available and is not a national of one of the parties. The appointments referred to in this subparagraph shall be made from the list referred to in article 2 of this Annex within a period of 30 days of the receipt of the request and in consultation with the parties. The members so appointed shall be of different nationalities and may not be in the service of, ordinarily resident in the territory of, or nationals of, any of the parties to the dispute.

(f) Any vacancy shall be filled in the manner prescribed for the initial appointment.

(g) Parties in the same interest shall appoint one member of the tribunal jointly by agreement. Where there are several parties having separate interests or where there is disagreement as to whether they are of the same interest, each of them shall appoint one member of the tribunal. The number of members of the tribunal appointed separately by the parties shall always be smaller by one than the number of members of the tribunal to be appointed jointly by the parties.

(h) In disputes involving more than two parties, the provisions of subparagraphs (a) to (f) shall apply to the maximum extent possible.

Article 4
Functions of arbitral tribunal

An arbitral tribunal constituted under article 3 of this Annex shall function in accordance with this Annex and the other provisions of this Convention.

Article 5
Procedure

Unless the parties to the dispute otherwise agree, the arbitral tribunal shall determine its own procedure, assuring to each party a full opportunity to be heard and to present its case.

Article 6
Duties of parties to a dispute

The parties to the dispute shall facilitate the work of the arbitral tribunal and, in particular, in accordance with their law and using all means at their disposal, shall:

(a) provide it with all relevant documents, facilities and information; and

(b) enable it when necessary to call witnesses or experts and receive their evidence and to visit the localities to which the case relates.

Article 7
Expenses

Unless the arbitral tribunal decides otherwise because of the particular circumstances of the case, the expenses of the tribunal, including the remuneration of its members, shall be borne by the parties to the dispute in equal shares.

Article 8
Required majority for decisions

Decisions of the arbitral tribunal shall be taken by a majority vote of its members. The absence or abstention of less than half of the members shall not constitute a bar to the tribunal reaching a decision. In the event of an equality of votes, the President shall have a casting vote.

Article 9
Default of appearance

If one of the parties to the dispute does not appear before the arbitral tribunal or fails to defend its case, the other party may request the tribunal to continue the proceedings and to make its award. Absence of a party or failure of a party to defend its case shall not constitute a bar to the proceedings. Before making its award, the arbitral tribunal must satisfy itself not only that it has jurisdiction over the dispute but also that the claim is well founded in fact and law.

Article 10
Award

The award of the arbitral tribunal shall be confined to the subject-matter of the dispute and state the reasons on which it is based. It shall contain the names of the members who have participated and the date of the award. Any member of the tribunal may attach a separate or dissenting opinion to the award.

Article 11
Finality of award

The award shall be final and without appeal, unless the parties to the dispute have agreed in advance to an appellate procedure. It shall be complied with by the parties to the dispute.

Article 12
Interpretation or implementation of award

1. Any controversy which may arise between the parties to the dispute as regards the interpretation or manner of implementation of the award may be submitted by either party for decision to the arbitral tribunal which made the award. For this purpose, any vacancy in the tribunal shall be filled in the manner provided for in the original appointments of the members of the tribunal.

2. Any such controversy may be submitted to another court or tribunal under article 287 by agreement of all the parties to the dispute.

Article 13
Application to entities other than States Parties

The provisions of this Annex shall apply mutatis mutandis to any dispute involving entities other than States Parties.

ANNEX VIII. SPECIAL ARBITRATION

Article 1
Institution of proceedings

Subject to Part XV, any party to a dispute concerning the interpretation or application of the articles of this Convention relating to (1) fisheries, (2) protection and preservation of the marine environment, (3) marine scientific research, or (4) navigation, including pollution from vessels and by dumping, may submit the dispute to the special arbitral procedure provided for in this Annex by written notification addressed to the other party or parties to the dispute. The notification shall be accompanied by a statement of the claim and the grounds on which it is based.

Article 2
Lists of experts

1. A list of experts shall be established and maintained in respect of each of the fields of (1) fisheries, (2) protection and preservation of the marine environment, (3) marine scientific research, and (4) navigation, including pollution from vessels and by dumping.

2. The lists of experts shall be drawn up and maintained, in the field of fisheries by the Food and Agriculture Organization of the United Nations, in the field of protection and preservation of the marine environment by the United Nations Environment Programme, in the field of marine scientific research by the Inter-Governmental Oceanographic Commission, in the field of navigation, including pollution from vessels and by dumping, by the International Maritime Organization, or in each case by the appropriate subsidiary body concerned to which such organization, programme or commission has delegated this function.

3. Every State Party shall be entitled to nominate two experts in each field whose competence in the legal, scientific or technical aspects of such field is established and generally recognized and who enjoy the highest reputation for fairness and integrity. The names of the persons so nominated in each field shall constitute the appropriate list.

4. If at any time the experts nominated by a State Party in the list so constituted shall be fewer than two, that State Party shall be entitled to make further nominations as necessary.

5. The name of an expert shall remain on the list until withdrawn by the State Party which made the nomination, provided that such expert shall continue to serve on any special arbitral tribunal to which that expert has been appointed until the completion of the proceedings before that special arbitral tribunal.

Article 3
Constitution of special arbitral tribunal

For the purpose of proceedings under this Annex, the special arbitral tribunal shall, unless the parties otherwise agree, be constituted as follows:

(a) Subject to subparagraph (g), the special arbitral tribunal shall consist of five members.

(b) The party instituting the proceedings shall appoint two members to be chosen preferably from the appropriate list or lists referred to in article 2 of this Annex relating to the matters in dispute, one of whom may be its national. The appointments shall be included in the notification referred to in article 1 of this Annex.

(c) The other party to the dispute shall, within 30 days of receipt of the notification referred to in article 1 of this Annex, appoint two members to be chosen preferably from the appropriate list or lists relating to the matters in dispute, one of whom may be its national. If the appointments are not made within that period, the party instituting the proceedings may, within two weeks of the expiration of that period, request that the appointments be made in accordance with subparagraph (e).

(d) The parties to the dispute shall by agreement appoint the President of the special arbitral tribunal, chosen preferably from the appropriate list, who shall be a national of a third State, unless the parties otherwise agree. If, within 30 days of receipt of the notification referred to in article 1 of this Annex, the parties are unable to reach agreement on the appointment of the President, the appointment shall be made in accordance with subparagraph (e), at the request of a party to the dispute. Such request shall be made within two weeks of the expiration of the aforementioned 30-day period.

(e) Unless the parties agree that the appointment be made by a person or a third State chosen by the parties, the Secretary-General of the United Nations shall make the necessary appointments within 30 days of receipt of a request under subparagraphs (c) and (d). The appointments referred to in this subparagraph shall be made from the appropriate list or lists of experts referred to in article 2 of this Annex and in consultation with the parties to the dispute and the appropriate international organization. The members so appointed shall be of different nationalities and may not be in the service of, ordinarily resident in the territory of, or nationals of, any of the parties to the dispute.

(f) Any vacancy shall be filled in the manner prescribed for the initial appointment.

(g) Parties in the same interest shall appoint two members of the tribunal jointly by agreement. Where there are several parties having separate interests or where there is disagreement as to whether they are of the same interest, each of them shall appoint one member of the tribunal.

(h) In disputes involving more than two parties, the provisions of subparagraphs (a) to (f) shall apply to the maximum extent possible.

Article 4
General provisions

Annex VII, articles 4 to 13, apply mutatis mutandis to the special arbitration proceedings in accordance with this Annex.

Article 5
Fact finding

1. The parties to a dispute concerning the interpretation or application of the provisions of this Convention relating to (1) fisheries, (2) protection and preservation of the marine environment, (3) marine scientific research, or (4) navigation, including pollution from vessels and by dumping, may at any time agree to request a special arbitral

tribunal constituted in accordance with article 3 of this Annex to carry out an inquiry and establish the facts giving rise to the dispute.

2. Unless the parties otherwise agree, the findings of fact of the special arbitral tribunal acting in accordance with paragraph 1, shall be considered as conclusive as between the parties.

3. If all the parties to the dispute so request, the special arbitral tribunal may formulate recommendations which, without having the force of a decision, shall only constitute the basis for a review by the parties of the questions giving rise to the dispute.

4. Subject to paragraph 2, the special arbitral tribunal shall act in accordance with the provisions of this Annex, unless the parties otherwise agree.

ANNEX IX. PARTICIPATION BY INTERNATIONAL ORGANIZATIONS

Article 1
Use of terms

For the purposes of article 305 and of this Annex, "international organization" means an intergovernmental organization constituted by States to which its member States have transferred competence over matters governed by this Convention, including the competence to enter into treaties in respect of those matters.

Article 2
Signature

An international organization may sign this Convention if a majority of its member States are signatories of this Convention. At the time of signature an international organization shall make a declaration specifying the matters governed by this Convention in respect of which competence has been transferred to that organization by its member States which are signatories, and the nature and extent of that competence.

Article 3
Formal confirmation and accession

1. An international organization may deposit its instrument of formal confirmation or of accession if a majority of its member States deposit or have deposited their instruments of ratification or accession.

2. The instruments deposited by the international organization shall contain the undertakings and declarations required by articles 4 and 5 of this Annex.

Article 4
Extent of participation and rights and obligations

1. The instrument of formal confirmation or of accession of an international organization shall contain an undertaking to accept the rights and obligations of States under this Convention in respect of matters relating to which competence has been transferred to it by its member States which are Parties to this Convention.

2. An international organization shall be a Party to this Convention to the extent that it has competence in accordance with the declarations, communications of information or notifications referred to in article 5 of this Annex.

3. Such an international organization shall exercise the rights and perform the obligations which its member States which are Parties would otherwise have under this Convention, on matters relating to which competence has been transferred to it by those member States. The member States of that international organization shall not exercise competence which they have transferred to it.

4. Participation of such an international organization shall in no case entail an increase of the representation to which its member States which are States Parties would otherwise be entitled, including rights in decision-making.

5. Participation of such an international organization shall in no case confer any rights under this Convention on member States of the organization which are not States Parties to this Convention.

6. In the event of a conflict between the obligations of an international organization under this Convention and its obligations under the agreement establishing the organization or any acts relating to it, the obligations under this Convention shall prevail.

Article 5
Declarations, notifications and communications

1. The instrument of formal confirmation or of accession of an international organization shall contain a declaration specifying the matters governed by this Convention in respect of which competence has been transferred to the organization by its member States which are Parties to this Convention.

2. A member State of an international organization shall, at the time it ratifies or accedes to this Convention or at the time when the organization deposits its instrument of formal confirmation or of accession, whichever is later, make a declaration specifying the matters governed by this Convention in respect of which it has transferred competence to the organization.

3. States Parties which are member States of an international organization which is a Party to this Convention shall be presumed to have competence over all matters governed by this Convention in respect of which transfers of competence to the organization have not been specifically declared, notified or communicated by those States under this article.

4. The international organization and its member States which are States Parties shall promptly notify the depositary of this Convention of any changes to the distribution of competence, including new transfers of competence, specified in the declarations under paragraphs 1 and 2.

5. Any State Party may request an international organization and its member States which are States Parties to provide information as to which, as between the organization and its member States, has competence in respect of any specific question which has arisen. The organization and the member States concerned shall provide this information within a reasonable time. The international organization and the member States may also, on their own initiative, provide this information.

6. Declarations, notifications and communications of information under this article shall specify the nature and extent of the competence transferred.

Article 6
Responsibility and liability

1. Parties which have competence under article 5 of this Annex shall have responsibility for failure to comply with obligations or for any other violation of this Convention.

2. Any State Party may request an international organization or its member States which are States Parties for information as to who has responsibility in respect of any specific matter. The organization and the member States concerned shall provide this information. Failure to provide this information within a reasonable time or the provision of contradictory information shall result in joint and several liability.

Article 7
Settlement of disputes

1. At the time of deposit of its instrument of formal confirmation or of accession, or at any time thereafter, an international organization shall be free to choose, by means of a written declaration, one or more of the means for the settlement of disputes concerning the interpretation or application of this Convention, referred to in article 287, paragraph 1(a), (c) or (d).

2. Part XV applies mutatis mutandis to any dispute between Parties to this Convention, one or more of which are international organizations.

3. When an international organization and one or more of its member States are joint parties to a dispute, or parties in the same interest, the organization shall be deemed to have accepted the same procedures for the settlement of disputes as the member States; when, however, a member State has chosen only the International Court of Justice under article 287, the organization and the member State concerned shall be deemed to have accepted arbitration in accordance with Annex VII, unless the parties to the dispute otherwise agree.

Article 8
Applicability of Part XVII

Part XVII applies mutatis mutandis to an international organization, except in respect of the following:

(a) the instrument of formal confirmation or of accession of an international organization shall not be taken into account in the application of article 308, paragraph 1;

(b) (i) an international organization shall have exclusive capacity with respect to the application of articles 312 to 315, to the extent that it has competence under article 5 of this Annex over the entire subject-matter of the amendment;

(ii) the instrument of formal confirmation or of accession of an international organization to an amendment, the entire subject-matter over which the international organization has competence under article 5 of this Annex, shall be considered to be the instrument of ratification or accession of each of the member States which are States Parties, for the purposes of applying article 316, paragraphs 1, 2 and 3;

(iii) the instrument of formal confirmation or of accession of the international organization shall not be taken into account in the application of article 316, paragraphs 1 and 2, with regard to all other amendments;

(c) (i) an international organization may not denounce this Convention in accordance with article 317 if any of its member States is a State Party and if it continues to fulfil the qualifications specified in article 1 of this Annex;

(ii) an international organization shall denounce this Convention when none of its member States is a State Party or if the international organization no longer fulfils the qualifications specified in article 1 of this Annex. Such denunciation shall take effect immediately.

Vienna Convention for the Protection of the Ozone Layer, Vienna, 1985

Done at Vienna 22 March 1985

Entered into force 22 September 1988

Depositary: Secretary-General of the United Nations

Primary source citation: TIAS 11097

VIENNA CONVENTION FOR THE PROTECTION OF THE OZONE LAYER

Preamble

The Parties to this Convention,

Aware of the potentially harmful impact on human health and the environment through modification of the ozone layer,

Recalling the pertinent provisions of the Declaration of the United Nations Conference on the Human Environment, and in particular principle 21, which provides that "States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their on resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction",

Taking into account the circumstances and particular requirements of developing countries,

Mindful of the work and studies proceeding within both international and national organizations and, in particular, of the Work Plan of Action on the Ozone Layer of the United Nations Environment Programme,

Mindful also of the precautionary measures for the protection of the ozone layer which have already been taken at the national and international levels,

Aware that measures to protect the ozone layer from modifications due to human activities require international co-operation and action, and should be based on relevant scientific and technical considerations,

Aware also of the need for further research and systematic observations to further develop scientific knowledge of the ozone layer and possible adverse effects resulting from its modification,

Determined to protect human health and the environment against adverse effects resulting from modifications of the ozone layer,

HAVE AGREED AS FOLLOWS:

Article 1

DEFINITIONS

For the purposes of this Convention:

1. "The ozone layer" means the layer of atmospheric ozone above the planetary boundary layer.

2. "Adverse effects" means changes in the physical environment or biota, including changes in climate, which have significant deleterious effects on human health or on the composition, resilience and productivity of natural and managed ecosystems, or on materials useful to mankind.

3. "Alternative technologies or equipment" means technologies or equipment the use of which makes it possible to reduce or effectively eliminate emissions of substances which have or are likely to have adverse effects on the ozone layer.

4. "Alternative substances" means substances which reduce, eliminate or avoid adverse effects on the ozone layer.

5. "Parties" means, unless the text otherwise indicates, Parties to this Convention.

6. "Regional economic integration organization" means an organization constituted by sovereign States of a given region which has competence in respect of matters governed by this convention or its protocols and has been duly authorized, in accordance with its internal procedures, to sign, ratify, accept, approve or accede to the instruments concerned.

7. "Protocols" means protocols to this Convention.

Article 2

GENERAL OBLIGATIONS

1. The Parties shall take appropriate measures in accordance with the provisions of this Convention and of those protocols in force to which they are party to protect human health and the environment against adverse effects resulting or likely to result from human activities which modify or are likely to modify the ozone layer.

2. To this end the Parties shall, in accordance with the means at their disposal and their capabilities:

(a) Co-operate by means of systematic observations, research and information exchange in order to better understand and assess the effects of human activities on the ozone layer and the effects on human health and the environment from modification of the ozone layer;

(b) Adopt appropriate legislative or administrative measures and co-operate in harmonizing appropriate policies to control, limit, reduce or prevent human activities under their jurisdiction or control should it be found that these activities have or are likely to have adverse effects resulting from modification or likely modification of the ozone layer;

(c) Co-operate in the formulation of agreed measures, procedures and standards for the implementation of this Convention, with a view to the adoption of protocols and annexes;

(d) Co-operate with competent international bodies to implement effectively this Convention and protocols to which they are party.

3. The provisions of this Convention shall in no way affect the right of Parties to adopt, in accordance with international law, domestic measures additional to those referred to in paragraphs 1 and 2 above, nor shall they affect additional domestic measures already taken by a Party, provided that these measures are not incompatible with their obligations under this Convention.

4. The application of this article shall be based on relevant scientific and technical considerations.

Article 3

RESEARCH AND SYSTEMATIC OBSERVATIONS

1. The Parties undertake, as appropriate, to initiate and co-operate in, directly or through competent international bodies, the conduct of research and scientific assessments on:

(a) The physical and chemical processes that may affect the ozone layer;

(b) The human health and other biological effects deriving from any modifications on the ozone layer, particularly those resulting from changes in ultra-violet solar radiation having biological effects (UV-B);

(c) Climatic effects deriving from any modifications of the ozone layer;

(d) Effects deriving from any modifications of the ozone layer and any consequent change in UV-B radiation on natural and synthetic materials useful to mankind;

(e) Substances, practices, processes and activities that may affect the ozone layer, and their cumulative effects;

(f) Alternative substances and technologies;

(g) Related socio-economic matters;

and as further elaborated in annexes I and II.

2. The Parties undertake to promote or establish, as appropriate, directly or through competent international bodies and taking fully into account national legislation and relevant ongoing activities at both the national and international levels, joint or complementary programmes for systematic observation of the state of the ozone layer and other relevant parameters, as elaborated in annex I.

3. The Parties undertake to co-operate, directly or through competent international bodies, in ensuring the collection, validation and transmission of research and observational data through appropriate world data centres in a regular and timely fashion.

Article 4

CO-OPERATION IN THE LEGAL, SCIENTIFIC AND TECHNICAL FIELDS

1. The Parties shall facilitate and encourage the exchange of scientific, technical, socio-economic, commercial and legal information relevant to this Convention as further elaborated in annex II. Such information shall be supplied to bodies agreed upon by the Parties. Any such body receiving information regarded as confidential by the supplying Party shall ensure that such information is not disclosed and shall aggregate it to protect its confidentiality before it is made available to all Parties.

2. The Parties shall co-operate, consistent with their national laws, regulations and practices and taking into account in particular the needs of the developing countries, in promoting, directly or through competent international bodies, the development and transfer of technology and knowledge. Such co-operation shall be carried out particularly through:

(a) Facilitation of the acquisition of alternative technologies by other Parties;

(b) Provision of information on alternative technologies and equipment, and supply of special manuals or guides to them;

(c) The supply of necessary equipment and facilities for research and systematic observations;

(d) Appropriate training of scientific and technical personnel.

Article 5

TRANSMISSION OF INFORMATION

The Parties shall transmit, through the secretariat, to the Conference of the Parties established under article 6 information on the measures adopted by them in implementation of this Convention and of protocols to which they are party in such form and at such intervals as the meetings of the parties to the relevant instruments may determine.

Article 6

CONFERENCE OF THE PARTIES

1. A Conference of the Parties is hereby established. The first meeting of the Conference of the Parties shall be convened by the secretariat designated on an interim basis under article 7 not later than one year after entry into force of this Convention. Thereafter, ordinary meetings of the Conference of the Parties shall be held at regular intervals to be determined by the Conference at its first meeting.

2. Extraordinary meetings of the Conference of the Parties shall be held at such other times as may be deemed necessary by the Conference, or at the written request of any Party, provided that, within six months of the request being communicated to them by the secretariat, it is supported by as least one-third of the Parties.

3. The Conference of the Parties shall by consensus agree upon and adopt rules of procedure and financial rules for itself and for any subsidiary bodies it may establish, as well as financial provisions governing the functioning of the secretariat.

4. The Conference of the Parties shall keep under continuous review the implementation of this Convention, and, in addition, shall:

(a) Establish the form and the intervals for transmitting the information to be submitted in accordance with article 5 and consider such information as well as reports submitted by any subsidiary body;

(b) Review the scientific information on the ozone layer, on its possible modification and on possible effects of any such modification;

(c) Promote, in accordance with article 2, the harmonization of appropriate policies, strategies and measures for minimizing the release of substances causing or likely to cause modification of the ozone layer, and make recommendations on any other measures relating to this Convention;

(d) Adopt, in accordance with articles 3 and 4, programmes for research, systematic observations, scientific and technological co-operation, the exchange of information and the transfer of technology and knowledge;

(e) Consider and adopt, as required, in accordance with articles 9 and 10, amendments to this Convention and its annexes;

(f) Consider amendments to any protocol, as well as to any annexes thereto, and, if so decided, recommend their adoption to the parties to the protocol concerned;

(g) Consider and adopt, as required, in accordance with article 10, additional annexes to this Convention;

(h) Consider and adopt, as required, protocols in accordance with article 8;

(i) Establish such subsidiary bodies as are deemed necessary for the implementation of this Convention;

(j) Seek, where appropriate, the services of competent international bodies and scientific committees, in particular the World Meteorological Organization and the World Health Organization, as well as the Co-ordinating Committee on the Ozone Layer, in scientific research, systematic observations and other activities pertinent to the objectives of this Convention, and make use as appropriate of information from these bodies and committees;

(k) Consider and undertake any additional action that may be required for the achievement of the purposes of this Convention.

5. The United Nations, its specialized agencies and the International Atomic Energy Agency, as well as any State not party to this Convention, may be represented at meetings of the Conference of the Parties by observers. Any body or agency, whether national or international, governmental or non-governmental, qualified in fields relating to the protection of the ozone layer which has informed the secretariat of its wish to be represented at a meeting of the Conference of the Parties as an observer may be admitted unless at least one-third of the Parties present object. The admission and participation of observers shall be subject to the rules of procedure adopted by the Conference of the Parties.

Article 7

SECRETARIAT

1. The functions of the secretariat shall be:

(a) To arrange for and service meetings provided for in articles 6, 8, 9 and 10;

(b) To prepare and transmit reports based upon information received in accordance with articles 4 and 5, as well as upon information derived from meetings of subsidiary bodies established under article 6;

(c) To perform the functions assigned to it by any protocol;

(d) To prepare reports on its activities carried out in implementation of its functions under this Convention and present them to the Conference of the Parties;

(e) To ensure the necessary co-ordination with the relevant international bodies, and in particular to enter into such administrative and contractual arrangements as may be required for the effective discharge of its functions;

(f) To perform such other functions as may be determined by the Conference of the Parties.

2. The secretariat functions will be carried out on an interim basis by the United Nations Environment Programme until the completion of the first ordinary meeting of the Conference of the Parties held pursuant to article 6. At its first ordinary meeting, the Conference of the Parties shall designate the secretariat from amongst those existing competent international organizations which have signified their willingness to carry out the secretariat functions under this Convention.

Article 8

ADOPTION OF PROTOCOLS

1. The Conference of the Parties may as a meeting adopt protocols pursuant to article 2.

2. The text of any proposed protocol shall be communicated to the Parties by the secretariat as least six months before such a meeting.

Article 9

AMENDMENT OF THE CONVENTION OR PROTOCOLS

1. Any Party may propose amendments to this Convention or to any protocol. Such amendments shall take due account, inter alia, of relevant scientific and technical considerations.

2. Amendments to this Convention shall be adopted at a meeting of the Conference of the Parties. Amendments to any protocol shall be adopted at a meeting of the Parties to the protocol in question. The text of any proposed amendment to this Convention or to any protocol, except as may otherwise be provided in such protocol, shall be communicated to the Parties by the secretariat at least six months before the meeting at which it is proposed for adoption. The secretariat shall also communicate proposed amendments to the signatories to this Convention for information.

3. The Parties shall make every effort to reach agreement on any proposed amendment to this Convention by consensus. If all efforts at consensus have been exhausted, and no agreement reached, the amendment shall as a last resort be adopted by a three-fourths majority vote of the Parties present and voting at the meeting, and shall be submitted by the Depositary to all Parties for ratification, approval or acceptance.

4. The procedure mentioned in paragraph 3 above shall apply to amendments to any protocol, except that a two-thirds majority of the parties to that protocol present and voting at the meeting shall suffice for their adoption.

5. Ratification, approval or acceptance of amendments shall be notified to the Depositary in writing. Amendments adopted in accordance with paragraphs 3 and 4 above shall enter into force between parties having accepted them on the ninetieth day after the receipt by the Depositary of notification of their ratification, approval or acceptance by as least three-fourths of the Parties to this Convention or by at least two-thirds of the parties to the protocol concerned, except as may otherwise be provided in such protocol. Thereafter the amendments shall enter into force for any other Party on the ninetieth day after that Party deposits its instrument of ratification, approval or acceptance of the amendments.

6. For the purposes of this article, "Parties present and voting" means Parties present and casting an affirmative or negative vote.

Article 10

ADOPTION AND AMENDMENT OF ANNEXES

1. The annexes to this Convention or to any protocol shall form an integral part of this Convention or of such protocol, as the case may be, and, unless expressly provided otherwise, a reference to this Convention or its protocols constitutes at the same time a reference to any annexes thereto. Such annexes shall be restricted to scientific, technical and administrative matters.

2. Except as may be otherwise provided in any protocol with respect to its annexes, the following procedure shall apply to the proposal, adoption and entry into force of additional annexes to this Convention or of annexes to a protocol:

(a) Annexes to this Convention shall be proposed and adopted according to the procedure laid down in article 9, paragraphs 2 and 3, while annexes to any protocol shall be proposed and adopted according to the procedure laid down in article 9, paragraphs 2 and 4;

(b) Any party that is unable to approve an additional annex to this Convention or an annex to any protocol to which it is party shall so notify the Depositary, in writing, within six months form the date of the communication of the adoption by the Depositary. The Depositary shall without delay notify all Parties of any such notification received. A Party may at any time substitute an acceptance for a previous declaration of objection and the annexes shall thereupon enter into force for that Party;

(c) On the expiry of six months from the date of the circulation of the communication by the Depositary, the annex shall become effective for all Parties to this Convention or to any protocol concerned which have not submitted a notification in accordance with the provision of subparagraph (b) above.

3. The proposal, adoption and entry into force of amendments to annexes to this Convention or to any protocol shall be subject to the same procedure as for the proposal, adoption and entry into force of annexes to the Convention or annexes to a protocol. Annexes and amendments thereto shall take due account, inter alia, of relevant scientific and technical considerations.

4. If an additional annex or an amendment to an annex involves an amendment to this Convention or to any protocol, the additional annex or amended annex shall not enter into force until such time as the amendment to this convention or to the protocol concerned enters into force.

Article 11

SETTLEMENT OF DISPUTES

1. In the event of a dispute between Parties concerning the interpretation or application of this Convention, the Parties concerned shall seek solution by negotiation.

2. If the parties concerned cannot reach agreement by negotiation, they may jointly seek the good offices of, or request mediation by, a third party.

3. When ratifying, accepting, approving or acceding to this Convention, or at any time thereafter, a State or regional economic integration organization may declare in writing to the Depositary that for a dispute not resolved in accordance with paragraph 1 or paragraph 2 above, it accepts one or both of the following means of dispute settlement as compulsory:

(a) Arbitration in accordance with procedures to be adopted by the Conference of the Parties at its first ordinary meeting;

(b) Submission of the dispute to the International Court of Justice.

4. If the parties have not, in accordance with paragraph 3 above, accepted the same or any procedure, the dispute shall be submitted to conciliation in accordance with paragraph 5 below unless the parties otherwise agree.

5. A conciliation commission shall be created upon the request of one of the parties to the dispute. The commission shall be composed of an equal number of members appointed by each party concerned and a chairman chosen jointly by the members appointed by each party. The commission shall render a final and recommendatory award, which the parties shall consider in good faith.

6. The provisions of this article shall apply with respect to any protocol except as otherwise provided in the protocol concerned.

Article 12

SIGNATURE

This Convention shall be open for signature by States and by regional economic integration organizations at the Federal Ministry for Foreign Affairs of the Republic of Austria in Vienna from 22 March 1985 to 21 September 1985, and at United Nations Headquarters in New York from 22 September 1985 to 21 March 1986.

Article 13

RATIFICATION, ACCEPTANCE OR APPROVAL

1. This Convention and any protocol shall be subject to ratification, acceptance or approval by States and by regional economic integration organizations. Instruments of ratification, acceptance or approval shall be deposited with the Depositary.

2. Any organization referred to in paragraph 1 above which becomes a Party to this Convention or any protocol without any of its member States being a Party shall be bound by all the obligations under the Convention or the protocol, as the case may be. In the case of such organizations, one or more of whose member States is a Party to the Convention or relevant protocol, the organization and its member States shall decide on their respective responsibilities for the performance of their obligation under the Convention or protocol, as the case may be. In such cases, the organization and the member States shall not be entitled to exercise rights under the Convention or relevant protocol concurrently.

3. In their instruments of ratification, acceptance or approval, the organizations referred to in paragraph 1 above shall declare the extent of their competence with respect to the matters governed by the Convention or the relevant protocol. These organizations shall also inform the Depositary of any substantial modification in the extent of their competence.

Article 14

ACCESSION

1. This Convention and any protocol shall be open for accession by States and by regional economic integration organizations from the date on which the Convention or the protocol concerned is closed for signature. The instruments of accession shall be deposited with the Depositary.

2. In their instruments of accession, the organizations referred to in paragraph 1 above shall declare the extent of their competence with respect to the matters governed by the Convention or the relevant protocol. These organizations shall also inform the Depositary of any substantial modification in the extent of their competence.

3. The provisions of article 13, paragraph 2, shall apply to regional economic integration organizations which accede to this Convention or any protocol.

Article 15

RIGHT TO VOTE

1. Each Party to this Convention or any protocol shall have one vote.

2. Except as provided for in paragraph 1 above, regional economic integration organizations, in matters within their competence, shall exercise their right to vote with a number of votes equal to the number of their member States which are Parties to the Convention or the relevant protocol. Such organizations shall not exercise their right to vote if their member States exercise theirs, and vice versa.

Article 16

RELATIONSHIP BETWEEN THE CONVENTION AND ITS PROTOCOLS

1. A State or a regional economic integration organization may not become a party to a protocol unless it is, or becomes at the same time, a Party to the Convention.

2. Decisions concerning any protocol shall be taken only by the parties to the protocol concerned.

Article 17

ENTRY INTO FORCE

1. This Convention shall enter into force on the ninetieth day after the date of deposit of the twentieth instrument of ratification, acceptance, approval or accession.

2. Any protocol, except as otherwise provided in such protocol, shall enter into force on the ninetieth day after the date of deposit of the eleventh instrument of ratification, acceptance or approval of such protocol or accession thereto.

3. For each Party which ratifies, accepts or approves this Convention or accedes thereto after the deposit of the twentieth instrument of ratification, acceptance, approval or accession, it shall enter into force on the ninetieth day after the date of deposit by such Party of its instrument of ratification, acceptance, approval or accession.

4. Any protocol, except as otherwise provided in such protocol, shall enter into force for a party that ratifies, accepts or approves that protocol or accedes thereto after its entry into force pursuant to paragraph 2 above, on the ninetieth day after the date on which that party deposits its instrument of ratification, acceptance, approval or accession, or on the date on which the convention enters into force for that Party, whichever shall be the later.

5. For the purpose of paragraphs 1 and 2 above, any instrument deposited by a regional economic integration organization shall not be counted as additional to those deposited by member States of such organization.

Article 18

RESERVATIONS

No reservations may be made to this Convention.

Article 19

WITHDRAWAL

1. At any time after four years from the date on which this Convention has entered into force for a Party, that Party may withdraw from the Convention by giving written notification to the Depositary.

2. Except as may be provided in any protocol, at any time after four years from the date on which such protocol has entered into force for a party, that party may withdraw from the protocol by giving written notification to the Depositary.

3. Any such withdrawal shall take effect upon expiry of one year after the date of its receipt by the Depositary, or on such later date as may be specified in the notification of the withdrawal.

4. Any Party which withdraws from this Convention shall be considered as also having withdrawn from any protocol to which it is party.

Article 20

DEPOSITARY

1. The Secretary-General of the United Nations shall assume the functions of depositary of this Convention and any protocols.

2. The Depositary shall inform the Parties, in particular, of:

(a) The signature of this Convention and of any protocol, and the deposit of instruments of ratification, acceptance, approval or accession in accordance with articles 13 and 14;

(b) The date on which the Convention and any protocol will come into force in accordance with article 17;

(c) Notifications of withdrawal made in accordance with article 19;

(d) Amendments adopted with respect to the Convention and any protocol, their acceptance by the parties and their date of entry into force in accordance with article 9;

(e) All communications relating to the adoption and approval of annexes and to the amendment of annexes in accordance with article 10;

(f) Notifications by regional economic integration organizations of the extent of their competence with respect to matters governed by this Convention and any protocols, and of any modifications thereof;

(g) Declarations made in accordance with article 11, paragraph 3.

Article 21

AUTHENTIC TEXTS

The original of this Convention, of which the Arabic, Chinese, English, French, Russian and Spanish texts are equally authentic, shall be deposited with the Secretary-General of the United Nations.

IN WITNESS THEREOF the undersigned, being duly authorized to that effect, have signed this Convention.

Done at Vienna on the 22nd day of March 1985

Annex I

RESEARCH AND SYSTEMATIC OBSERVATIONS

1. The Parties to the Convention recognize that the major scientific issues are:

(a) Modification of the ozone layer which would result in a change in the amount of solar ultra-violet radiation having biological effects (UV-B) that reaches the Earth's surface and the potential consequences for human health, for organisms, ecosystems and materials useful to mankind;

(b) Modification of the vertical distribution of ozone, which could change the temperature structure of the atmosphere and the potential consequences for weather and climate.

2. The Parties to the Convention, in accordance with article 3, shall co-operate in conducting research and systematic observations and in formulating recommendations for future research and observation in such areas as:

(a) Research into the physics and chemistry of the atmosphere

(i) Comprehensive theoretical models: further development of models which consider the interaction between radiative, dynamic and chemical processes; studies of the simultaneous effects of various man-made and naturally occurring species upon atmospheric ozone; interpretation of satellite and non-satellite measurement data sets; evaluation of trends in atmospheric and geophysical parameters, and the development of methods for attributing changes in these parameters to specific causes;

(ii) Laboratory studies of: rate coefficients, absorption cross-sections and mechanisms of tropospheric and stratospheric chemical and photochemical processes; spectroscopic data to support field measurements in all relevant spectral regions;

(iii) Field measurements: the concentration and fluxes of key source gases of both natural and anthropogenic origin; atmospheric dynamics studies; simultaneous measurements of photochemically-related species down to the planetary boundary layer, using in situ and remote sensing instruments; intercomparison of different sensors, including co-ordinated correlative measurements for satellite instrumentation; three-dimensional fields of key atmospheric trace constituents, solar spectral flux and meteorological parameters;

(iv) Instrument development, including satellite and non-satellite sensors for atmospheric trace constituents, solar flux and meteorological parameters;

(b) Research into health, biological and photodegradation effects

(i) The relationship between human exposure to visible and ultra-violet solar radiation and (a) the development of both non-melanoma and melanoma skin cancer and (b) the effects on the immunological system;

(ii) Effects of UV-B radiation, including the wavelength dependence, upon (a) agricultural crops, forests and other terrestrial ecosystems and (b) the aquatic food web and fisheries, as well as possible inhibition of oxygen production by marine phytoplankton;

(iii) The mechanisms by which UV-B radiation acts on biological materials, species and ecosystems, including: the relationship between dose, dose rate, and response; photorepair, adaptation, and protection;

(iv) Studies of biological action spectra in the spectral response using polychromatic radiation in order to include possible interactions of the various wavelength regions;

(v) The influence of UV-B radiation on: the sensitivities and activities of biological species important to the biospheric balance; primary processes such as photosynthesis and biosynthesis;

(vi) The influence of UV-B radiation on the photodegradation of pollutants, agricultural chemicals and other materials;

(c) Research on effects on climate

(i) Theoretical and observational studies of the radiative effects of ozone and other trace species and the impact on climate parameters, such as land and ocean surface temperatures, precipitation patterns, the exchange between the troposphere and stratosphere;

(ii) The investigation of the effects of such climate impacts on various aspects of human activity;

(d) Systematic observations on:

(i) The status of the ozone layer (i.e. the spatial and temporal variability of the total column content and vertical distribution) by making the Global Ozone Observing System, based on the integration of satellite and ground-based systems, fully operational;

(ii) The tropospheric and stratospheric concentrations of source gases for the HO_x, NO_x, ClO_x and carbon families;

(iii) The temperature from the ground to the mesosphere, utilizing both ground-based and satellite systems;

(iv) Wavelength-resolved solar flux reaching, and thermal radiation leaving, the Earth's atmosphere, utilizing satellite measurements;

(v) Wavelength-resolved solar flux reaching the Earth's surface in the ultra-violet range having biological effects (UV-B);

(vi) Aerosol properties and distribution from the ground to the mesosphere, utilizing ground-based, airborne and satellite systems;

(vii) Climatically important variables by the maintenance of programmes of high-quality meteorological surface measurements;

(viii) Trace species, temperatures, solar flux and aerosols utilizing improved methods for analysing global data.

3. The Parties to the Convention shall co-operate, taking into account the particular needs of the developing countries, in promoting the appropriate scientific and technical training required to participate in the research and systematic observations outlined in this annex. Particular emphasis should be given to the intercalibration of observational instrumentation and methods with a view to generating comparable or standardized scientific data sets.

4. The following chemical substances of natural and anthropogenic origin, not listed in order of priority, are thought to have the potential to modify the chemical and physical properties of the ozone layer.

(a) Carbon substances

(i) Carbon monoxide (CO)

Carbon monoxide has significant natural and anthropogenic sources, and is thought to play a major direct role in tropospheric photochemistry, and an indirect role in stratospheric photochemistry.

(ii) Carbon dioxide (CO_2)

Carbon dioxide has significant natural and anthropogenic sources, and affects stratospheric ozone by influencing the thermal structure of the atmosphere.

(iii) Methane (CH_4)

Methane has both natural and anthropogenic sources, and affects both tropospheric and stratospheric ozone.

(iv) Non-methane hydrocarbon species

Non-methane hydrocarbon species, which consist of a large number of chemical substances, have both natural and anthropogenic sources, and play a direct role in tropospheric photochemistry and an indirect role in stratospheric photochemistry.

(b) Nitrogen substances

(i) Nitrous oxide (N_2O)

The dominant sources of N_2O are natural, but anthropogenic contributions are becoming increasingly important. Nitrous oxide is the primary source of stratospheric NO_x, which play a vital role in controlling the abundance of stratospheric ozone.

(ii) Nitrogen oxides (NO_x)

Ground-level sources of NO_x play a major direct role only in tropospheric photochemical processes and an indirect role in stratosphere photochemistry, whereas injection of NO_x close to the tropopause may lead directly to a change in upper tropospheric and stratospheric ozone.

(c) Chlorine substances

(i) Fully halogenated alkanes, e.g. CCl_4, $CFCl_3$ (CFC-11), CF_2Cl_2 (CFC-12), $C_2F_3Cl_3$ (CFC-113), $C_2F_4Cl_2$ (CFC-114)

Fully halogenated alkanes are anthropogenic and act as a source of ClO_x, which plays a vital role in ozone photochemistry, especially in the 30–50 km altitude region.

(ii) Partially halogenated alkanes, e.g. CH_3Cl, CHF_2Cl (CFC-22), CH_3CCl_3, $CHFCl_2$ (CFC-21)

The sources of CH_3Cl are natural, whereas the other partially halogenated alkanes mentioned above are anthropogenic in origin. These gases also act as a source of stratospheric ClO_x.

(d) Bromine substances

Fully halogenated alkanes, e.g. CF_3Br

These gases are anthropogenic and act as a source of BrO_x, which behaves in a manner similar to ClO_x.

(e) Hydrogen substances

(i) Hydrogen (H_2)

Hydrogen, the source of which is natural and anthropogenic, plays a minor role in stratospheric photochemistry.

(ii) Water (H_2O)

Water, the source of which is natural, plays a vital role in both tropospheric and stratospheric photochemistry. Local sources of water vapour in the stratosphere include the oxidation of methane and, to a lesser extent, of hydrogen.

Annex II

INFORMATION EXCHANGE

1. The Parties to the Convention recognize that the collection and sharing of information is an important means of implementating the objectives of this Convention and of assuring that any actions that may be taken are appropriate and equitable. Therefore, Parties shall exchange scientific, technical, socio-economic, business, commercial and legal information.

2. The Parties to the Convention, in deciding what information is to be collected and exchanged, should take into account the usefulness of the information and the costs of obtaining it. The Parties further recognize that co-operation under this annex has to be consistent with national laws, regulations and practices regarding patents, trade secrets, and protection of confidential and proprietary information.

3. Scientific information

This includes information on:

(a) Planned and ongoing research, both governmental and private, to facilitate the co-ordination of research programmes to as to make the most effective use of available national international resources;

(b) The emission data needed for research;

(c) Scientific results published in peer-reviewed literature on the understanding of the physics and chemistry of the Earth's atmosphere and of its susceptibility to change, in particular on the state of the ozone layer and effects on human health, environment and climate which should result from changes on all time-scales in either the total column content or the vertical distribution os ozone;

(d) The assessment of research results and the recommendations for future research.

4. Technical information

This includes information on:

(a) The availability and cost of chemical substitutes and of alternative technologies to reduce the emissions of ozone-modifying substances and related planned and ongoing research;

(b) The limitations and any risks involved in using chemical or other substitutes and alternative technologies.

5. Socio-economic and commercial information on the substances referred to in annex I

This includes information on:

(a) Production and production capacity;

(b) Use and use patterns;

(c) Imports/exports;

(d) The costs, risks and benefits of human activities which may indirectly modify the ozone layer and of the impacts of regulatory actions taken or being considered to control these activities.

6. Legal information

This includes information on:

(a) National laws, administrative measures and legal research relevant to the protection of the ozone layer;

(b) International agreements, including bilateral agreements, relevant to the protection of the ozone layer;

(c) Methods and terms of licensing and availability of patents relevant to the protection of the ozone layer.

Montreal Protocol on Substances That Deplete the Ozone Layer, Montreal, 1987

Done at Montreal 16 September 1987

Entered into force 1 January 1989

Primary source citation: Senate Treaty Document 100-10, 100th Congress, 1st Session, U.S. Government Printing Office, Washington, 1987

MONTREAL PROTOCOL ON SUBSTANCES THAT DEPLETE THE OZONE LAYER, 1987

The Parties to this Protocol,

Being Parties to the Vienna Convention for the Protection of the Ozone Layer,

Mindful of their obligation under that Convention to take appropriate measures to protect human health and the environment against adverse effects resulting or likely to result from human activities which modify or are likely to modify the ozone layer,

Recognizing that world-wide emissions of certain substances can significantly deplete and otherwise modify the ozone layer in a manner that is likely to result in adverse effects on human health and the environment,

Conscious of the potential climatic effects of emissions of these substances,

Aware that measures taken to protect the ozone layer from depletion should be based on relevant scientific knowledge, taking into account technical and economic considerations,

Determined to protect the ozone layer by taking precautionary measures to control equitably total global emissions of substances that deplete it, with the ultimate objective of their elimination on the basis of developments in scientific knowledge, taking into account technical and economic considerations,

Acknowledging that special provision is required to meet the needs of developing countries for these substances,

Noting the precautionary measures for controlling emissions of certain chlorofluorocarbons that have already been taken at national and regional levels,

Considering the importance of promoting international co-operation in the research and development of science and technology relating to the control and reduction of emissions of substances that deplete the ozone layer, bearing in mind in particular the needs of developing country,

Have agreed as follows:

ARTICLE 1: DEFINITIONS

For the purposes of this Protocol:

1. "Convention" means the Vienna Convention for the Protection of the Ozone Layer, adopted on 22 March 1985.

2. "Parties" means, unless the text otherwise indicates, Parties to this Protocol.

3. "Secretariat" means the secretariat of the Convention.

4. "Controlled substance" means a substance listed in Annex A to this Protocol, whether existing alone or in a mixture. It excludes, however, any such substance or mixture which is in a manufactured product other than a container used for the transportation or storage of the substance listed.

5. "Production" means the amount of controlled substances produced minus the amount destroyed by technologies to be approved by the Parties.

6. "Consumption" means production plus imports minus exports of controlled substances.

7. "Calculated levels" of production, imports, exports and consumption means levels determined in accordance with Article 3.

8. "Industrial rationalization" means the transfer of all or a portion of the calculated level of production of one Party to another, for the purpose of achieving economic efficiencies or responding to anticipated shortfalls in supply as a result of plant closures.

ARTICLE 2: CONTROL MEASURES

1. Each Party shall ensure that for the twelve-month period commencing on the first day of the seventh month following the date of the entry into force of this Protocol, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group I of Annex A does not exceed its calculated level of consumption in 1986. By the end of the same period, each Party producing one or more of these substances shall ensure that its calculated level of production of the substances does not exceed its calculated level of production in 1986, except that such level may have increased by no more than ten per cent based on the 1986 level. Such increase shall be permitted only so as to satisfy the basic domestic needs of the Parties operating under Article 5 and for the purposes of industrial rationalization between Parties.

2. Each Party shall ensure that for the twelve-month period commencing on the first day of the thirty-seventh month following the date of the entry into force of this Protocol, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances listed in Group II of Annex A does not exceed its calculated level of consumption in 1986. Each Party producing one or more of these substances shall ensure that its calculated level of production of the substances does not exceed its calculated level of production in 1986, except that such level may have increased by no more than ten per cent based on the 1986 level. Such increase shall be permitted only so as to satisfy the basic domestic needs of the Parties operating under Article 5 and for the purposes of industrial rationalization between Parties. The mechanisms for implementing these measures shall be decided by the Parties at their first meeting following the first scientific review.

3. Each Party shall ensure that for the period 1 July 1993 to 30 June 1994 and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group I of Annex A does not exceed, annually, eighty per cent of its calculated level of consumption in 1986. Each Party producing one or more of these substances shall, for the same periods, ensure that its calculated level of production of the substances does not exceed, annually, eighty per cent of its calculated level of production in 1986. However, in order to satisfy the basic domestic needs of the Parties operating under Article 5 and for the purposes of industrial rationalization between Parties, its calculated level of production may exceed that limit by up to ten per cent of its calculated level of production in 1986.

4. Each Party shall ensure that for the period 1 July 1998 to 30 June 1999, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group I of Annex A does not exceed,

annually, fifty per cent of its calculated level of consumption in 1986. Each Party producing one or more of these substances shall, for the same periods, ensure that its calculated level of production of the substances does not exceed, annually, fifty per cent of its calculated level of production in 1986. However, in order to satisfy the basic domestic needs of the Parties operating under Article 5 and for the purposes of industrial rationalization between Parties, its calculated level of production may exceed that limit by up to fifteen per cent of its calculated level of production in 1986. This paragraph will apply unless the Parties decide otherwise at a meeting by a two-thirds majority of Parties present and voting, representing at least two-thirds of the total calculated level of consumption of these substances of the Parties. This decision shall be considered and made in the light of the assessments referred to in Article 6.

5. Any Party whose calculated level of production in 1986 of the controlled substances in Group I of Annex A was less than twenty-five kilotonnes may, for the purposes of industrial rationalization, transfer to or receive from any other Party, production in excess of the limits set out in paragraphs 1, 3 and 4 provided that the total combined calculated levels of production of the Parties concerned does not exceed the production limits set out in this Article. Any transfer of such production shall be notified to the secretariat, no later than the time of the transfer.

6. Any Party not operating under Article 5, that has facilities for the production of controlled substances under construction, or contracted for, prior to 16 September 1987, and provided for in national legislation prior to 1 January 1987, may add the production from such facilities to its 1986 production of such substances for the purposes of determining its calculated level of production for 1986, provided that such facilities are completed by 31 December 1990 and that such production does not raise that Party's annual calculated level of consumption of the controlled substances above 0.5 kilogram per capita.

7. Any transfer of production pursuant to paragraph 5 or any addition of production pursuant to paragraph 6 shall be notified to the secretariat, no later than the time of the transfer or addition.

8. (a) Any Parties which are Member States of a regional economic integration organization as defined in Article 1(6) of the Convention may agree that they shall jointly fulfill their obligations respecting consumption under this Article provided that their total combined calculated level of consumption does not exceed the levels required by this Article.

(b) The Parties to any such agreement shall inform the secretariat of the terms of the agreement before the date of the reduction in consumption with which the agreement is concerned.

(c) Such agreement will become operative only if all Member States of the regional economic integration organization and the organization concerned are Parties to the Protocol and have notified the secretariat of their manner of implementation.

9. (a) Based on the assessments made pursuant to Article 6, the Parties may decide whether:

(i) adjustments to the ozone depleting potentials specified in Annex A should be made and, if so, what the adjustments should be; and

(ii) further adjustments and reductions of production or consumption of the controlled substances from 1986 levels should be undertaken and, if so, what the scope, amount and timing of any such adjustments and reductions should be.

(b) Proposals for such adjustments shall be communicated to the Parties by the secretariat at least six months before the meeting of the Parties at which they are proposed for adoption.

(c) In taking such decisions, the Parties shall make every effort to reach agreement by consensus. If all efforts at consensus have been exhausted, and no agreement reached, such decisions shall, as a last resort, be adopted by a two-thirds majority vote of the Parties present and voting representing at least fifty per cent of the total consumption of the controlled substances of the Parties.

(d) The decisions, which shall be binding on all Parties, shall forthwith be communicated to the Parties by the Depositary. Unless otherwise provided in the decisions, they shall enter into force on the expiry of six months from the date of the circulation of the communication by the Depositary.

10. (a) Based on the assessments made pursuant to Article 6 of this Protocol and in accordance with the procedure set out in Article 9 of the Convention, the Parties may decide:

(i) whether any substances, and if so which, should be added to or removed from any annex to this Protocol; and

(ii) the mechanism, scope and timing of the control measures that should apply to those substances;

(b) Any such decision shall become effective, provided that it has been accepted by a two-thirds majority vote of the Parties present and voting.

11. Notwithstanding the provisions contained in the Article, Parties may take more stringent measures than those required by this Article.

ARTICLE 3: CALCULATION OF CONTROL LEVELS

For the purposes of Articles 2 and 5, each Party shall, for each Group of substances in Annex A, determine its calculated levels of:

(a) production by:

(i) multiplying its annual production of each controlled substance by the ozone depleting potential specified in respect of it in Annex A; and

(ii) adding together, for each such Group, the resulting figures;

(b) imports and exports, respectively, by following, *mutatis mutandis*, the procedure set out in subparagraph (a); and

(c) consumption by adding together its calculated levels of production and imports and subtracting its calculated level of exports as determined in accordance with subparagraphs (a) and (b). However, beginning on 1 January 1993, any export of controlled substances to non-Parties shall not be subtracted in calculating the consumption level of the exporting Party.

ARTICLE 4: CONTROL OF TRADE WITH NON-PARTIES

1. Within one year of the entry into force of this Protocol, each Party shall ban the import of controlled substances from any State not party to this Protocol.

2. Beginning on 1 January 1993, no Party operating under paragraph 1 of Article 5 may export any controlled substance to any State not party to this Protocol.

3. Within three years of the date of the entry into force of this Protocol, the Parties shall, following the procedures in Article 10 of the Convention, elaborate in an annex a list of products containing controlled substances. Parties that have not objected to the annex in accordance with those procedures shall ban, within one year of the annex having become effective, the import of those products from any State not party to this Protocol.

4. Within five years of the entry into force of this Protocol, the Parties shall determine the feasibility of banning or restricting, from States not party to this Protocol, the import of products produced with, but not containing, controlled substances. If determined feasible, the Parties shall, following the procedures in Article 10 of the Convention, elaborate in an annex a list of such products. Parties that have not objected to it in accordance with those procedures shall ban or restrict, within one year of the annex having become effective, the import of those products from any State not party to this Protocol.

5. Each Party shall discourage the export, to any State not party to this Protocol, of technology for producing and for utilizing controlled substances.

6. Each Party shall refrain from providing new subsidies, aid, credits, guarantees or insurance programmes for the export to States not party to this Protocol of products, equipment, plants or technology that would facilitate the production of controlled substances.

7. Paragraphs 5 and 6 shall not apply to products, equipment, plants or technology that improve the containment, recovery, recycling or destruction of controlled substances, promote the development of alternative substances, or otherwise contribute to the reduction of emissions of controlled substances.

8. Notwithstanding the provisions of this Article, imports referred to in paragraphs 1, 3 and 4 may be permitted from any State not party to this Protocol if that State is determined, by a meeting of the Parties, to be in full compliance with Article 2 and this Article, and has submitted data to that effect as specified in Article 7.

ARTICLE 5: SPECIAL SITUATION OF DEVELOPING COUNTRIES

1. Any Party that is a developing country and whose annual calculated level of consumption of the controlled substances is less than 0.3 kilogram per capita on the date of the entry into force of the Protocol for it, or any time thereafter within ten years of the date of entry into force of the Protocol shall, in order to meet its basic domestic needs, be entitled to delay its compliance with the control measures set out in paragraphs 1 to 4 of Article 2 by ten years after that specified in those paragraphs. However, such Party shall not exceed an annual calculated level of consumption of 0.3 kilogram per capita. Any such Party shall be entitled to use either the average of its annual calculated level of consumption for the period 1995 to 1997 inclusive or a calculated level of consumption of 0.3 kilogram per capita, whichever is the lower, as the basis for its compliance with the control measures.

2. The Parties undertake to facilitate access to environmentally safe alternative substances and technology for Parties that are developing countries and assist them to make expeditious use of such alternatives.

3. The Parties undertake to facilitate bilaterally or multilaterally the provision of subsidies, aid, credits, guarantees or insurance programmes to Parties that are developing countries for the use of alternative technology and for substitute products.

ARTICLE 6: ASSESSMENT AND REVIEW OF CONTROL MEASURES

Beginning in 1990, and at least every four years thereafter, the Parties shall assess the control measures provided for in Article 2 on the basis of available scientific, environmental, technical and economic information. At least one year before each assessment, the Parties shall convene appropriate panels of experts qualified in the fields mentioned and determine the composition and terms of reference of any such panels. Within one year of being convened, the panels will report their conclusions, through the secretariat, to the Parties.

ARTICLE 7: REPORTING OF DATA

1. Each Party shall provide to the secretariat, within three months of becoming a Party, statistical data on its production, imports and exports of each of the controlled substances for the year 1986, or the best possible estimates of such data where actual data are not available.

2. Each Party shall provide statistical data to the secretariat on its annual production (with separate data on amounts destroyed by technologies to be approved by the Parties), imports, and exports to Parties and non-Parties, respectively, of such substances for the year during which it becomes a Party and for each year thereafter. It shall forward the data no later than nine months after the end of the year to which the data relate.

ARTICLE 8: NON-COMPLIANCE

The Parties, at their first meeting, shall consider and approve procedures and institutional mechanisms for determining non-compliance with the provisions of this Protocol and for treatment of Parties found to be in non-compliance.

ARTICLE 9: RESEARCH, DEVELOPMENT, PUBLIC AWARENESS AND EXCHANGE OF INFORMATION

1. The Parties shall co-operate, consistent with their national laws, regulations and practices and taking into account in particular the needs of developing countries, in promoting, directly through competent international bodies, research, development and exchange of information on:

(a) best technologies for improving the containment, recovery, recycling or destruction of controlled substances or otherwise reducing their emissions;

(b) possible alternatives to controlled substances, to products containing such substances, and to products manufactured with them; and

(c) costs and benefits of relevant control strategies.

2. The Parties, individually, jointly or through competent international bodies, shall co-operate in promoting public awareness of the environmental effects of the emissions of controlled substances and other substances that deplete the ozone layer.

3. Within two years of the entry into force of this Protocol and every two years thereafter, each Party shall submit to the secretariat a summary of the activities it has conducted pursuant to this Article.

ARTICLE 10: TECHNICAL ASSISTANCE

1. The Parties shall, in the context of the provisions of Article 4 of the Convention, and taking into account in particular the needs of developing countries, co-operate in promoting technical assistance to facilitate participation in and implementation of this Protocol.

2. Any Party or Signatory to this Protocol may submit a request to the secretariat for technical assistance for the purposes of implementing or participating in the Protocol.

3. The Parties, at their first meeting, shall begin deliberations on the means of fulfilling the obligations set out in Article 9, and paragraphs 1 and 2 of this Article, including the preparation of workplans. Such workplans shall pay special attention to the needs and circumstances of the developing countries. States and regional economic integration organizations not party to the Protocol should be encouraged to participate in activities specified in such workplans.

ARTICLE 11: MEETINGS OF THE PARTIES

1. The Parties shall hold meetings at regular intervals. The secretariat shall convene the first meeting of the Parties not later than one year after the date of the entry into force of this Protocol and in conjunction with a meeting of the Conference of the Parties to the Convention, if a meeting of the latter is scheduled within that period.

2. Subsequent ordinary meetings of the Parties shall be held, unless the Parties otherwise decide, in conjunction with meetings of the Conference of the Parties to the Convention. Extraordinary meetings of the Parties shall be held at such other times as may be deemed necessary by a meeting of the Parties, or at the written request of any Party, provided that, within six months of such a request being communicated to them by the secretariat, it is supported by at least one-third of the Parties.

3. The Parties, at their first meeting, shall:

(a) adopt by consensus rules of procedure for their meetings;

(b) adopt by consensus the financial rules referred to in paragraph 2 of Article 13;

(c) establish the panels and determine the terms of reference referred to in Article 6;

(d) consider and approve the procedures and institutional mechanisms specified in Article 8; and

(e) begin preparation of workplans pursuant to paragraph 3 of Article 10.

4. The functions of the meetings of the Parties shall be to:

(a) review the implementation of this Protocol;

(b) decide on any adjustments or reductions referred to in paragraph 9 of Article 2;

(c) decide on any addition to, insertion in or removal from any annex of substances and on related control measures in accordance with paragraph 10 of Article 2;

(d) establish, where necessary, guidelines or procedures for reporting of information as provided for in Article 7 and paragraph 3 of Article 9;

(e) review requests for technical assistance submitted pursuant to paragraph 2 of Article 10;

(f) review reports prepared by the secretariat pursuant to subparagraph (c) of Article 12;

(g) assess, in accordance with Article 6, the control measures provided for in Article 2;

(h) consider and adopt, as required, proposals for amendment of this Protocol or any annex and for any new annex;

(i) consider and adopt the budget for implementing this Protocol; and

(j) consider and undertake any additional action that may be required for the achievement of the purposes of this Protocol.

5. The United Nations, its specialized agencies and the International Atomic Energy Agency, as well as any State not party to this Protocol, may be represented at meetings of the Parties as observers. Any body or agency, whether national or international, governmental or non-governmental, qualified in fields relating to the protection of the ozone layer which has informed the secretariat of its wish to be represented at a meeting of the Parties as an observer may be admitted unless at least one-third of the Parties present object. The admission and participation of observers shall be subject to the rules of procedure adopted by the Parties.

ARTICLE 12: SECRETARIAT

For the purposes of this Protocol, the secretariat shall:

(a) arrange for and service meetings of the Parties as provided for in Article 11;

(b) receive and make available, upon request by a Party, data provided pursuant to Article 7;

(c) prepare and distribute regularly to the Parties reports based on information received pursuant to Articles 7 and 9;

(d) notify the Parties of any request for technical assistance received pursuant to Article 10 so as to facilitate the provision of such assistance;

(e) encourage non-Parties to attend the meetings of the Parties as observers and to act in accordance with the provisions of this Protocol;

(f) provide, as appropriate, the information and requests referred to in subparagraphs (c) and (d) to such non-party observers; and

(g) perform such other functions for the achievement of the purposes of this Protocol as may be assigned to it by the Parties.

ARTICLE 13: FINANCIAL PROVISIONS

1. The funds required for the operation of this Protocol, including those for the functioning of the secretariat related to this Protocol, shall be charged exclusively against contributions from the Parties.

2. The Parties, at their first meeting, shall adopt by consensus financial rules for the operation of this Protocol.

ARTICLE 14: RELATIONSHIP OF THIS PROTOCOL TO THE CONVENTION

Except as otherwise provided in this Protocol, the provisions of the Convention relating to its protocols shall apply to this Protocol.

ARTICLE 15: SIGNATURE

This Protocol shall be open for signature by States and by regional economic integration organizations in Montreal on 16 September 1987, in Ottawa from 17 September 1987 to 16 January 1988, and at United Nations Headquarters in New York from 17 January 1988 to 15 September 1988.

ARTICLE 16: ENTRY INTO FORCE

1. This Protocol shall enter into force on 1 January 1989, provided that at least eleven instruments of ratification, acceptance, approval of the Protocol or accession thereto have been deposited by States or regional economic integration organizations representing at least two-thirds of 1986 estimated global consumption of the controlled substances, and the provisions of paragraph 1 of Article 17 of the Convention have been fulfilled. In the event that these conditions have not been fulfilled by that date, the Protocol shall enter into force on the ninetieth day following the date on which the conditions have been fulfilled.

2. For the purposes of paragraph 1, any such instrument deposited by a regional economic integration organization shall not be counted as additional to those deposited by member States of such organization.

3. After the entry into force of this Protocol, any State or regional economic integration organization shall become a Party to it on the ninetieth day following the date of deposit of its instrument of ratification, acceptance, approval or accession.

ARTICLE 17: PARTIES JOINING AFTER ENTRY INTO FORCE

Subject to Article 5, any State or regional economic integration organization which becomes a Party to this Protocol after the date of its entry into force, shall fulfill forthwith the sum of the obligations under Article 2, as well as under Article 4, that apply at that date to the States and regional economic organizations that became Parties on the date the Protocol entered into force.

ARTICLE 18: RESERVATIONS

No reservations may be made to this Protocol.

ARTICLE 19: WITHDRAWAL

For the purposes of this Protocol, the provisions of Article 19 of the Convention relating to withdrawal shall apply, except with respect to Parties referred to in paragraph 1 of Article 5. Any such Party may withdraw from this Protocol by giving written notification to the Depositary at any time after four years of assuming the obligations specified in paragraphs 1 to 4 of Article 2. Any such withdrawal shall take effect upon expiry of one year after the date of its receipt by the Depositary, or on such later date as may be specified in the notification of the withdrawal.

ARTICLE 20: AUTHENTIC TEXTS

The original of this Protocol, of which the Arabic, Chinese, English, French, Russian and Spanish texts are equally authentic, shall be deposited with the Secretary-General of the United Nations.

In witness whereof the undersigned, being duly authorized to that effect, have signed this Protocol.

Done at Montreal this sixteenth day of September, One Thousand Nine Hundred and Eighty-Seven.

ANNEX A—CONTROLLED SUBSTANCES

	Substance	Ozone depleting potential[1]
Group I	$CFCl_3$ (CFC–11)	1.0
	CF_2Cl_2 (CFC–12)	1.0
	$C_2F_3Cl_3$ (CFC–113)	0.8
	$C_2F_4Cl_2$ (CFC–114)	1.0
	C_2F_5Cl (CFC–115)	0.6
Group II	CF_2BrCl (halon-1211)	3.0
	CF_3Br (halon-1301)	10.0
	$C_2F_4Br_2$ (halon-2402)	(to be determined)

[1] These ozone depleting potentials are estimates based on existing knowledge and will be reviewed and revised periodically.

Amendment to the Montreal Protocol on Substances That Deplete the Ozone Layer, London, 1990

Done at London 29 June 1990

Entered into force 10 August 1992

Primary source citation: Senate Treaty Document 102-4, 102d Congress, 1st Session, U.S. Government Printing Office, Washington, 1990

AMENDMENT TO THE MONTREAL PROTOCOL ON SUBSTANCES THAT DEPLETE THE OZONE LAYER

ARTICLE 1: AMENDMENT

A. Preambular paragraphs

1. The 6th preambular paragraph of the Protocol shall be replaced by the following:

> Determined to protect the ozone layer by taking precautionary measures to control equitably total global emissions of substances that deplete it, with the ultimate objective of their elimination on the basis of developments in scientific knowledge, taking into account technical and economic considerations and bearing in mind the developmental needs of developing countries,

2. The 7th preambular paragraph of the Protocol shall be replaced by the following:

> Acknowledging that special provision is required to meet the needs of developing countries, including the provision of additional financial resources and access to relevant technologies, bearing in mind that the magnitude of funds necessary is predictable, and the funds can be expected to make a substantial difference in the world's ability to address the scientifically established problem of ozone depletion and its harmful effects,

3. The 9th preambular paragraph of the Protocol shall be replaced by the following:

> Considering the importance of promoting international co-operation in the research, development and transfer of alternative technologies relating to the control and reduction of emissions of substances that deplete the ozone layer, bearing in mind in particular the needs of developing countries,

B. Article 1: Definitions

1. Paragraph 4 of Article 1 of the Protocol shall be replaced by the following paragraph:

> 4. "Controlled substance" means a substance in Annex A or in Annex B to this Protocol, whether existing alone or in a mixture. It includes the isomers of any such substance, except as specified in the relevant Annex, but excludes any controlled substance or mixture which is in a manufactured product other than a container used for the transportation or storage of that substance.

2. Paragraph 5 of Article 1 of the Protocol shall be replaced by the following paragraph:

> 5. "Production" means the amount of controlled substances produced, minus the amount destroyed by technologies to be approved by the Parties and minus the amount entirely used as feedstock in the manufacture of other chemicals. The amount recycled and reused is not to be considered as "production".

3. The following paragraph shall be added to Article 1 of the Protocol:

> 9. "Transitional substance" means a substance in Annex C to this Protocol, whether existing alone or in a mixture. It includes the isomers of any such substance, except as may be specified in Annex C, but excludes any transitional substance or mixture which is in a manufactured product other than a container used for the transportation or storage of that substance.

C. Article 2, paragraph 5

Paragraph 5 of Article 2 of the Protocol shall be replaced by the following paragraph:

> 5. Any Party may, for any one or more control periods, transfer to another Party any portion of its calculated level of production set out in Articles 2A to 2E, provided that the total combined calculated levels of production of the Parties concerned for any group of controlled substances do not exceed the production limits set out in those Articles for that group. Such transfer of production shall be notified to the Secretariat by each of the Parties concerned, stating the terms of such transfer and the period for which it is to apply.

D. Article 2, paragraph 6

The following words shall be inserted in paragraph 6 of Article 2 before the words "controlled substances" the first time they occur:

> Annex A or Annex B

E. Article 2, paragraph 8 (a)

The following words shall be added after the words "this Article" wherever they appear in paragraph 8 (a) of Article 2 of the Protocol:

> and Articles 2A to 2E

F. Article 2, paragraph 9 (a) (i)

The following words shall be added after "Annex A" in paragraph 9 (a) (i) of Article 2 of the Protocol:

> and/or Annex B

G. Article 2, paragraph 9 (a) (ii)

The following words shall be deleted from paragraph 9 (a) (ii) of Article 2 of the Protocol:

from 1986 levels

H. Article 2, paragraph 9 (c)

The following words shall be deleted from paragraph 9 (c) of Article 2 of the Protocol:

representing at least fifty per cent of the total consumption of the controlled substances of the Parties

and replaced by:

representing a majority of the Parties operating under paragraph 1 of Article 5 present and voting and a majority of the Parties not so operating present and voting

I. Article 2, paragraph 10 (b)

Paragraph 10 (b) of Article 2 of the Protocol shall be deleted, and paragraph 10 (a) of Article 2 shall become paragraph 10.

J. Article 2, paragraph 11

The following words shall be added after the words "this Article" wherever they occur in paragraph 11 of Article 2 of the Protocol:

and Articles 2A to 2E

K. Article 2C: Other fully halogenated CFCs

The following paragraphs shall be added to the Protocol as Article 2C:

Article 2C: Other fully halogenated CFCs

1. Each Party shall ensure that for the twelve-month period commencing on 1 January 1993, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group I of Annex B does not exceed, annually, eighty per cent of its calculated level of consumption in 1989. Each Party producing one or more of these substances shall, for the same periods, ensure that its calculated level of production of the substances does not exceed, annually, eighty per cent of its calculated level of production in 1989. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten per cent of its calculated level of production in 1989.

2. Each Party shall ensure that for the twelve-month period commencing on 1 January 1997, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group I of Annex B does not exceed, annually, fifteen per cent of its calculated level of consumption in 1989. Each Party producing one or more of these substances shall, for the same periods, ensure that its calculated level of production of the substances does not exceed, annually, fifteen per cent of its calculated level of production in 1989. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten per cent of its calculated level of production in 1989.

3. Each Party shall ensure that for the twelve-month period commencing on 1 January 2000, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group I of Annex B does not exceed zero. Each Party producing one or more of these substances shall, for the same periods, ensure that its calculated level of production of the substances does not exceed zero. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to fifteen per cent of its calculated level of production in 1989.

L. Article 2D: Carbon tetrachloride

The following paragraphs shall be added to the Protocol as Article 2D:

Article 2D: Carbon tetrachloride

1. Each Party shall ensure that for the twelve-month period commencing on 1 January 1995, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substance in Group II of Annex B does not exceed, annually, fifteen per cent of its calculated level of consumption in 1989. Each Party producing the substance shall, for the same periods, ensure that its calculated level of production of the substance does not exceed, annually, fifteen per cent of its calculated level of production in 1989. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten per cent of its calculated level of production in 1989.

2. Each Party shall ensure that for the twelve-month period commencing on 1 January 2000, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substance in Group II of Annex B does not exceed zero. Each Party producing the substance shall, for the same periods, ensure that its calculated level of production of the substance does not exceed zero. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to fifteen per cent of its calculated level of production in 1989.

M. Article 2E: 1,1,1-trichloroethane (methyl chloroform)

The following paragraphs shall be added to the Protocol as Article 2E:

Article 2E: 1,1,1-trichloroethane (methyl chloroform)

1. Each Party shall ensure that for the twelve-month period commencing on 1 January 1993, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substance in Group III of Annex B does not exceed, annually, its calculated level of consumption in 1989. Each Party producing the substance shall, for the same periods, ensure that its calculated level of production of the substance does not exceed, annually, its calculated level of production in 1989. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten per cent of its calculated level of production in 1989.

2. Each Party shall ensure that for the twelve-month period commencing on 1 January 1995, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substance in Group III of Annex B does not exceed, annually, seventy per cent of its calculated level of consumption in 1989. Each Party producing the substance shall, for the same periods, ensure that its calculated level of production of the substance does not exceed, annually, seventy per cent of its calculated level of consumption in 1989. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten per cent of its calculated level of production in 1989.

3. Each Party shall ensure that for the twelve-month period commencing on 1 January 2000, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substance in Group III of Annex B does not exceed, annually, thirty per cent of its calculated level of consumption in 1989. Each Party producing the substance shall, for the same periods, ensure that its calculated level of production of the substance does not exceed, annually, thirty per cent of its calculated level of production in 1989. However, in order to satisfy the basic domestic needs of Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten per cent of its calculated level of production in 1989.

4. Each Party shall ensure that for the twelve-month period commencing on 1 January 2005, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substance in Group III of Annex B does not exceed zero. Each Party producing the substance shall, for the same periods, ensure that its calculated level of production of the substance does not exceed zero. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to fifteen per cent of its calculated level of production in 1989.

5. The Parties shall review, in 1992, the feasibility of a more rapid schedule of reductions than that set out in this Article.

N. Article 3: Calculation of control levels

1. The following shall be added after "Articles 2" in Article 3 of the Protocol:

, 2A to 2E,

2. The following words shall be added after "Annex A" each time it appears in Article 3 of the Protocol:

or Annex B

O. Article 4: Control of trade with non-Parties

1. Paragraphs 1 to 5 of Article 4 shall be replaced by the following paragraphs:

1. As of 1 January 1990, each Party shall ban the import of the controlled substances in Annex A from any State not party to this Protocol.

1 bis. Within one year of the date of the entry into force of this paragraph, each Party shall ban the import of the controlled substances in Annex B from any State not party to this Protocol.

2. As of 1 January 1993, each Party shall ban the export of any controlled substances in Annex A to any State not party to this Protocol.

2 bis. Commencing one year after the date of entry into force of this paragraph, each Party shall ban the export of any controlled substances in Annex B to any State not party to this Protocol.

3. By 1 January 1992, the Parties shall, following the procedures in Article 10 of the Convention, elaborate in an annex a list of products containing controlled substances in Annex A. Parties that have not objected to the annex in accordance with those procedures shall ban, within one year of the annex having become effective, the import of those products from any State not party to this Protocol.

3 bis. Within three years of the date of the entry into force of this paragraph, the Parties shall, following the procedures in Article 10 of the Convention, elaborate in an annex a list of products containing controlled substances in Annex B. Parties that have not objected to the annex in accordance with those procedures shall ban, within one year of the annex having become effective, the import of those products from any State not party to this Protocol.

4. By 1 January 1994, the Parties shall determine the feasibility of banning or restricting, from States not party to this Protocol, the import of products produced with, but not containing, controlled substances in Annex A. If determined feasible, the Parties shall, following the procedures in Article 10 of the Convention, elaborate in an annex a list of such products. Parties that have not objected to the annex in accordance with those procedures shall ban, within one year of the annex having become effective, the import of those products from any State not party to this Protocol.

4 bis. Within five years of the date of the entry into force of this paragraph, the Parties shall determine the feasibility of banning or restricting, from States not party to this Protocol, the import of products produced with, but not containing, controlled substances in Annex B. If determined feasible, the Parties shall, following the procedures in Article 10 of the Convention, elaborate in an annex a list of such products. Parties that have not objected to the annex in accordance with those procedures shall ban or restrict, within one year of the annex having become effective, the import of those products from any State not party to this Protocol.

5. Each Party undertakes to the fullest practicable extent to discourage the export to any State not party to this Protocol of technology for producing and for utilizing controlled substances.

2. Paragraph 8 of Article 4 of the Protocol shall be replaced by the following paragraph:

8. Notwithstanding the provisions of this Article, imports referred to in paragraphs 1, 1 bis, 3, 3 bis, 4 and 4 bis, and exports referred to in paragraphs 2 and 2 bis, may be permitted from, or to, any State not party to this Protocol, if that State is determined by a meeting of the Parties to be in full compliance with Article 2, Articles 2A to 2E, and this Article and have submitted data to that effect as specified in Article 7.

3. The following paragraph shall be added to Article 4 of the Protocol as paragraph 9:

9. For the purposes of this Article, the term "State not party to this Protocol" shall include, with respect to a particular controlled substance, a State or regional economic integration organization that has not agreed to be bound by the control measures in effect for that substance.

P. Article 5: Special situation of developing countries

Article 5 of the Protocol shall be replaced by the following:

1. Any Party that is a developing country and whose annual calculated level of consumption of the controlled substances in Annex A is less than 0.3 kilograms per capita on the date of the entry into force of the Protocol for it, or any time thereafter until 1 January 1999, shall in order to meet its basic domestic needs, be entitled to delay for ten years its compliance with the control measures set out in Articles 2A to 2E.

2. However, any Party operating under paragraph 1 of this Article shall exceed neither an annual calculated level of consumption of the controlled substances in Annex A of 0.3 kilograms per capita nor an annual calculated level of consumption of the controlled substances of Annex B of 0.2 kilograms per capita.

3. When implementing the control measures set out in Articles 2A to 2E, any Party operating under paragraph 1 of this Article shall be entitled to use:

(a) For controlled substances under Annex A, either the average of its annual calculated level of consumption for the period 1995 to 1997 inclusive or a calculated level of consumption of 0.3 kilograms per capita, whichever is the lower, as the basis for determining its compliance with the control measures;

(b) For controlled substances under Annex B, the average of its annual calculated level of consumption for the period 1998 to 2000 inclusive or a calculated level of consumption of 0.2 kilograms per capita, whichever is the lower, as the basis for determining its compliance with the control measures.

4. If a Party operating under paragraph 1 of this Article, at any time before the control measures obligations in Articles 2A to 2E become applicable to it, finds itself unable to obtain an adequate supply of controlled substances, it may notify this to the Secretariat. The Secretariat shall forthwith transmit a copy of such notification to the Parties, which shall consider the matter at their next Meeting, and decide upon appropriate action to be taken.

5. Developing the capacity to fulfil the obligations of the Parties operating under paragraph 1 of this Article to comply with the control measures set out in Articles 2A to 2E and their implementation by those same Parties will depend upon the effective implementation of the financial co-operation as provided by Article 10 and transfer of technology as provided by Article 10A.

6. Any Party operating under paragraph 1 of this Article may, at any time, notify the Secretariat in writing that, having taken all practicable steps it is unable to implement any or all of the obligations laid down in Articles 2A to 2E due to the inadequate implementation of Articles 10 and 10A. The Secretariat shall forthwith transmit a copy of the notification to the Parties, which shall consider the matter at their next Meeting, giving due recognition to paragraph 5 of this Article and shall decide upon appropriate action to be taken.

7. During the period between notification and the Meeting of the Parties at which the appropriate action referred to in paragraph 6 above is to be decided, or for a further period if the Meeting of the Parties so decides, the non-compliance procedures referred to in Article 8 shall not be invoked against the notifying Party.

8. A Meeting of the Parties shall review, not later than 1995, the situation of the Parties operating under paragraph 1 of this Article, including the effective implementation of financial co-operation and transfer of technology to them, and adopt such revisions that may be deemed necessary regarding the schedule of control measures applicable to those Parties.

9. Decisions of the Parties referred to in paragraphs 4, 6 and 7 of this Article shall be taken according to the same procedure applied to decision-making under Article 10.

Q. Article 6: Assessment and review of control measures

The following words shall be added after "Article 2" in Article 6 of the Protocol:

Articles 2A to 2E, and the situation regarding production, imports and exports of the transitional substances in Group I of Annex C

R. Article 7: Reporting of data

1. Article 7 of the Protocol shall be replaced by the following:

1. Each Party shall provide to the Secretariat, within three months of becoming a Party, statistical data on its production, imports and exports of each of the controlled substances in Annex A for the year 1986, or the best possible estimates of such data where actual data are not available.

2. Each Party shall provide to the Secretariat statistical data on its production, imports and exports of each of the controlled substances in Annex B and each of the transitional substances in Group I of Annex C, for the year 1989, or the best possible estimates of such data where actual data are not available, not later than three months after the date when the provisions set out in the Protocol with regard to the substances in Annex B enter into force for that Party.

3. Each Party shall provide statistical data to the Secretariat on its annual production (as defined in paragraph 5 of Article 1), and, separately,

- amounts used for feedstocks,

- amounts destroyed by technologies approved by the Parties,

- imports and exports to Parties and non-Parties respectively,

of each of the controlled substances listed in Annexes A and B as well as of the transitional substances in Group I of Annex C, for the year during which provisions concerning the substances in Annex B entered into force for that Party and for each year thereafter. Data shall be forwarded not later than nine months after the end of the year to which the data relate.

4. For Parties operating under the provisions of paragraph 8 (a) of Article 2, the requirements in paragraphs 1, 2 and 3 of this Article in respect of statistical data on imports and exports shall be satisfied if the regional economic integration organization concerned provides data on imports and exports between the organization and States that are not members of that organization.

S. Article 9: Research, development, public awareness and exchange of information

Paragraph 1 (a) of Article 9 of the Protocol shall be replaced by the following:

(a) Best technologies for improving the containment, recovery, recycling, or destruction of controlled and transitional substances or otherwise reducing their emissions;

T. Article 10: Financial mechanism

Article 10 of the Protocol shall be replaced by the following:

Article 10: Financial mechanism

1. The Parties shall establish a mechanism for the purposes of providing financial and technical co-operation, including the transfer of technologies, to Parties operating under paragraph 1 of Article 5 of this Protocol to enable their compliance with the control measures set out in Articles 2A to 2E of the Protocol. The mechanism, contributions to which shall be additional to other financial transfers to Parties operating under that paragraph, shall meet all agreed incremental costs of such Parties in order to enable their compliance with the control measures of the Protocol. An indicative list of the categories of incremental costs shall be decided by the meeting of the Parties.

2. The mechanism established under paragraph 1 shall include a Multilateral Fund. It may also include other means of multilateral, regional and bilateral co-operation.

3. The Multilateral Fund shall:

(a) Meet, on a grant or concessional basis as appropriate, and according to criteria to be decided upon by the Parties, the agreed incremental costs;

(b) Finance clearing-house functions to:

(i) Assist Parties operating under paragraph 1 of Article 5, through country specific studies and other technical co-operation, to identify their needs for co-operation;

(ii) Facilitate technical co-operation to meet these identified needs;

(iii) Distribute, as provided for in Article 9, information and relevant materials, and hold workshops, training sessions, and other related activities, for the benefit of Parties that are developing countries; and

(iv) Facilitate and monitor other multilateral, regional and bilateral co-operation available to Parties that are developing countries;

(c) Finance the secretarial services of the Multilateral Fund and related support costs.

4. The Multilateral Fund shall operate under the authority of the Parties who shall decide on its overall policies.

5. The Parties shall establish an Executive Committee to develop and monitor the implementation of specific operational policies, guidelines and administrative arrangements, including the disbursement of resources, for the purpose of achieving the objectives of the Multilateral Fund. The Executive Committee shall discharge its tasks and responsibilities, specified in its terms of reference as agreed by the Parties, with the co-operation and assistance of the International Bank for Reconstruction and Development (World Bank), the United Nations Environment Programme, the United Nations Development Programme or other appropriate agencies depending on their respective areas of expertise. The members of the Executive Committee, which shall be selected on the basis of a balanced representation of the Parties operating under paragraph 1 of Article 5 and of the Parties not so operating, shall be endorsed by the Parties.

6. The Multilateral Fund shall be financed by contributions from Parties not operating under paragraph 1 of Article 5 in convertible currency or, in certain circumstances, in kind and/or in national currency, on the basis of the United Nations scale of assessments. Contributions by other Parties shall be encouraged. Bilateral and, in particular cases agreed by a decision of the Parties, regional co-operation may, up to a percentage and consistent with any criteria to be specified by decision of the Parties, be considered as a contribution to the Multilateral Fund, provided that such co-operation, as a minimum:

(a) Strictly relates to compliance with the provisions of this Protocol;

(b) Provides additional resources; and

(c) Meets agreed incremental costs.

7. The Parties shall decide upon the programme budget of the Multilateral Fund for each fiscal period and upon the percentage of contributions of the individual Parties thereto.

8. Resources under the Bilateral Fund shall be disbursed with the concurrence of the beneficiary Party.

9. Decisions by the Parties under this Article shall be taken by consensus whenever possible. If all efforts at consensus have been exhausted and no agreement reached, decisions shall be adopted by a two-thirds majority vote of the Parties present and voting, representing a majority of the Parties operating under paragraph 1 of Article 5 present and voting and a majority of the Parties not so operating present and voting.

10. The financial mechanism set out in this Article is without prejudice to any future arrangements that may be developed with respect to other environmental issues.

U. Article 10A: Transfer of technology

The following Article shall be added to the Protocol as Article 10A:

Article 10A: Transfer of technology

Each Party shall take every practicable step, consistent with the programmes supported by the financial mechanism, to ensure:

(a) That the best available, environmentally safe substitutes and related technologies are expeditiously transferred to Parties operating under paragraph 1 of Article 5; and

(b) That the transfers referred to in subparagraph (a) occur under fair and most favourable conditions.

V. Article 11: Meetings of the Parties

Paragraph 4 (g) of Article 11 of the Protocol shall be replaced by the following:

(g) Assess, in accordance with Article 6, the control measures and the situation regarding transitional substances;

W. Article 17: Parties joining after entry into force

The following words shall be added after "as well as under" in Article 17:

Articles 2A to 2E, and

X. Article 19: Withdrawal

Article 19 of the Protocol shall be replaced by the following paragraph:

Any Party may withdraw from this Protocol by giving written notification to the Depositary at any time after four years of assuming the obligations specified in paragraph 1 of Article 2A. Any such withdrawal shall take effect upon expiry of one year after the date of its receipt by the Depositary, or on such later date as may be specified in the notification of the withdrawal.

Y. Annexes

The following annexes shall be added to the Protocol:

Annex B

Controlled substances

Group	Substance	Ozone-depleting potential
Group I		
CF_3Cl	(CFC-13)	1.0
C_2FCl_5	(CFC-111)	1.0
$C_2F_2Cl_4$	(CFC-112)	1.0
C_3FCl_7	(CFC-211)	1.0
$C_3F_2Cl_6$	(CFC-212)	1.0
$C_3F_3Cl_5$	(CFC-213)	1.0
$C_3F_4Cl_4$	(CFC-214)	1.0
$C_3F_5Cl_3$	(CFC-215)	1.0
$C_3F_6Cl_2$	(CFC-216)	1.0
C_3F_7Cl	(CFC-217)	1.0
Group II		
CCl_4	carbon tetrachloride	1.1
Group III		
$C_2H_3Cl_3$*	1,1,1-trichloroethane (methyl chloroform)	0.1

* This formula does not refer to 1,1,2-trichloroethane.

Annex C

Transitional substances

Group	Substance
Group I	
$CHFCl_2$	(HCFC-21)
CHF_2Cl	(HCFC-22)
CH_2FCl	(HCFC-31)
C_2HFCl_4	(HCFC-121)
$C_2HF_2Cl_3$	(HCFC-122)
$C_2HF_3Cl_2$	(HCFC-123)
C_2HF_4Cl	(HCFC-124)
$C_2H_2FCl_3$	(HCFC-131)
$C_2H_2F_2Cl_2$	(HCFC-132)
$C_2H_2F_3Cl$	(HCFC-133)
$C_2H_3FCl_2$	(HCFC-141)
$C_2H_3F_2Cl$	(HCFC-142)
C_2H_4FCl	(HCFC-151)
C_3HFCl_6	(HCFC-221)
$C_3HF_2Cl_5$	(HCFC-222)
$C_3HF_3Cl_4$	(HCFC-223)
$C_3HF_4Cl_3$	(HCFC-224)
$C_3HF_5Cl_2$	(HCFC-225)
C_3HF_6Cl	(HCFC-226)
$C_3H_2FCl_5$	(HCFC-231)
$C_3H_2F_2Cl_4$	(HCFC-232)
$C_3H_2F_3Cl_3$	(HCFC-233)
$C_3H_2F_4Cl_2$	(HCFC-234)
$C_3H_2F_5Cl$	(HCFC-235)
$C_3H_3FCl_4$	(HCFC-241)
$C_3H_3F_2Cl_3$	(HCFC-242)
$C_3H_3F_3Cl_2$	(HCFC-243)
$C_3H_3F_4Cl$	(HCFC-244)
$C_3H_4FCl_3$	(HCFC-251)
$C_3H_4F_2Cl_2$	(HCFC-252)
$C_3H_4F_3Cl$	(HCFC-253)
$C_3H_5FCl_2$	(HCFC-261)
$C_3H_5F_2Cl$	(HCFC-262)
C_3H_6FCl	(HCFC-271)

ARTICLE 2: ENTRY INTO FORCE

1. This Amendment shall enter into force on 1 January 1992, provided that at least twenty instruments of ratification, acceptance or approval of the Amendment have been deposited by States or regional economic integration organizations that are Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer. In the event that this condition has not been fulfilled by that date, the Amendment shall enter into force on the ninetieth day following the date on which it has been fulfilled.

2. For the purposes of paragraph 1, any such instrument deposited by a regional economic integration organization shall not be counted as additional to those deposited by member States of such organization.

3. After the entry into force of this Amendment as provided under paragraph 1, it shall enter into force for any other Party to the Protocol on the ninetieth day following the date of deposit of its instrument of ratification, acceptance or approval.

Adjustments to the Montreal Protocol on Substances That Deplete the Ozone Layer, London, 1990

Done at London 29 June 1990

Entered into force 7 March 1991

Primary source citation: Copy of text provided by the U.S. Department of State

ADJUSTMENTS TO THE MONTREAL PROTOCOL ON SUBSTANCES THAT DEPLETE THE OZONE LAYER

The Second Meeting of the Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer decides, on the basis of assessments made pursuant to Article 6 of the Protocol, to adopt adjustments and reductions of production and consumption of the controlled substances in Annex A to the Protocol, as follows, with the understanding that:

(a) References in Article 2 to "this Article" and throughout the Protocol to "Article 2" shall be interpreted as references to Articles 2, 2A and 2B;

(b) References throughout the Protocol to "paragraphs 1 to 4 of Article 2" shall be interpreted as references to Articles 2A and 2B; and

(c) The reference in paragraph 5 of Article 2 to "paragraphs 1, 3 and 4" shall be interpreted as a reference to Article 2A.

A. Article 2A: CFCs

Paragraph 1 of Article 2 of the Protocol shall become paragraph 1 of Article 2A, which shall be entitled "Article 2A: CFCs". Paragraphs 3 and 4 of Article 2 shall be replaced by the following paragraphs, which shall be numbered paragraphs 2 to 6 of Article 2A:

2. Each Party shall ensure that for the period from 1 July 1991 to 31 December 1992 its calculated levels of consumption and production of the controlled substances in Group I of Annex A do not exceed 150 per cent of its calculated levels of production and consumption of those substances in 1986; with effect from 1 January 1993, the twelve-month control period for these controlled substances shall run from 1 January to 31 December each year.

3. Each Party shall ensure that for the twelve-month period commencing on 1 January 1995, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group I of Annex A does not exceed, annually, fifty per cent of its calculated level of consumption in 1986. Each Party producing one or more of these substances shall, for the same periods, ensure that its calculated level of production of the substances does not exceed, annually, fifty per cent of its calculated level of production in 1986. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of

Article 5, its calculated level of production may exceed that limit by up to ten per cent of its calculated level of production in 1986.

4. Each Party shall ensure that for the twelve-month period commencing on 1 January 1997, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group I of Annex A does not exceed, annually, fifteen per cent of its calculated level of consumption in 1986. Each Party producing one or more of these substances shall, for the same periods, ensure that its calculated level of production of the substances does not exceed, annually, fifteen per cent of its calculated level of production in 1986. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten per cent of its calculated level of production in 1986.

5. Each Party shall ensure that for the twelve-month period commencing on 1 January 2000, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group I of Annex A does not exceed zero. Each Party producing one or more of these substances shall, for the same periods, ensure that its calculated level of production of the substances does not exceed zero. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to fifteen per cent of its calculated level of production in 1986.

6. In 1992, the Parties will review the situation with the objective of accelerating the reduction schedule.

B. Article 2B: Halons

Paragraph 2 of Article 2 of the Protocol shall be replaced by the following paragraphs, which shall be numbered paragraphs 1 to 4 of Article 2B:

Article 2B: Halons

1. Each Party shall ensure that for the twelve-month period commencing on 1 January 1992, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group II of Annex A does not exceed, annually, its calculated level of consumption in 1986. Each Party producing one or more of these substances shall, for the same periods, ensure that its calculated level of production of the substances does not exceed, annually, its calculated level of production in 1986. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten per cent of its calculated level of production in 1986.

2. Each Party shall ensure that for the twelve-month period commencing on 1 January 1995, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group II of Annex A does not exceed, annually, fifty per cent of its calculated level of consumption in 1986. Each Party producing one or more of these substances shall, for the same periods, ensure that its calculated level of production of the substances does not exceed, annually, fifty per cent of its calculated level of production in 1986. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten per cent of its calculated level of production in 1986. This paragraph will apply save to the extent that the Parties decide to permit the level of production or consumption that is necessary to satisfy essential uses for which no adequate alternatives are available.

3. Each Party shall ensure that for the twelve-month period commencing on 1 January 2000, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group II of Annex A does not exceed zero. Each Party producing one or more of these substances shall, for the same periods, ensure that its calculated level of production of the substances does not exceed zero. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to fifteen per cent of its calculated level of production in 1986. This paragraph will apply save to the extent that the Parties decide to permit the level of production or consumption that is necessary to satisfy essential uses for which no adequate alternatives are available.

4. By 1 January 1993, the Parties shall adopt a decision identifying essential uses, if any, for the purposes of paragraphs 2 and 3 of this Article. Such decision shall be reviewed by the Parties at their subsequent meetings.

Amendment to the Montreal Protocol on Substances That Deplete the Ozone Layer, Nairobi, 1991

Done at Nairobi 19–21 June 1991

Entered into force 27 May 1992

Primary source citation: Copy of text provided by the U.S. Department of State

Annex V

New Annex to the Montreal Protocol

Annex D*

A list of Products** Containing Controlled Substances Specified in Annex A

(Adopted in accordance with Article 4, paragraph 3)

1. Automobile and truck air conditioning units (whether incorporated in vehicles or not)

2. Domestic and commercial refrigeration and air conditioning/heat pump equipment***

   e.g. Refrigerators
   Freezers
   Dehumidifiers
   Water coolers
   Ice machines
   Air conditioning and heat
   Pump units

3. Aerosol products, except medical aerosols

4. Portable fire extinguisher

5. Insulation boards, panels and pipe covers

6. Pre-polymers

* This Annex was adopted by the Third Meeting of the Parties in Nairobi 19 – 21 June 1991 as required by paragraph 3 of Article 4 of the Protocol.

** Though not when transported in consignments of personal or household effects or in similar non-commercial situations normally exempted from customs attention.

*** When containing controlled substances in Annex A as a refrigerant and/or in insulating material of the product.

Amendment to the Montreal Protocol on Substances That Deplete the Ozone Layer, Copenhagen, 1992

Done at Copenhagen 25 November 1992

Not in force

Primary source citation: Copy of text provided by the U.S. Department of State

AMENDMENT TO THE MONTREAL PROTOCOL ON SUBSTANCES THAT DEPLETE THE OZONE LAYER

ARTICLE 1: AMENDMENT

A. *Article 1, paragraph 4*

In paragraph 4 of Article 1 of the Protocol, for the words:

or in Annex B

there shall be substituted:

, Annex B, Annex C or Annex E

B. *Article 1, paragraph 9*

Paragraph 9 of Article 1 of the Protocol shall be deleted.

C. *Article 2, paragraph 5*

In paragraph 5 of Article 2 of the Protocol, after the words:

Articles 2A to 2E

there shall be added:

and Article 2H

D. *Article 2, paragraph 5 bis*

The following paragraph shall be inserted after paragraph 5 of Article 2 of the Protocol:

5 *bis*. Any Party not operating under paragraph 1 of Article 5 may, for one or more control periods, transfer to another such Party any portion of its calculated level of consumption set out in Article 2F, provided that the calculated level of consumption of controlled substances in Group I of Annex A of the Party transferring the portion of its calculated level of consumption did not exceed 0.25 kilograms per capita in 1989 and that the total combined calculated levels of consumption of the Parties concerned do not exceed the consumption limits set out in Article 2F. Such transfer of consumption shall be notified to the Secretariat by each of the Parties concerned, stating the terms of such transfer and the period for which it is to apply.

E. *Article 2, paragraphs 8 (a) and 11*

In paragraphs 8 (a) and 11 of Article 2 of the Protocol, for the words:

Articles 2A to 2E

there shall be substituted each time they occur:

Articles 2A to 2H

F. *Article 2, paragraph 9(a)(i)*

In paragraph 9(a)(i) of Article 2 of the Protocol, for the words:

and/or Annex B

there shall be substituted:

, Annex B, Annex C and/or Annex E

G. *Article 2F: Hydrochlorofluorocarbons*

The following Article shall be inserted after Article 2E of the Protocol:

Article 2F: Hydrochlorofluorocarbons

1. Each Party shall ensure that for the twelve-month period commencing on 1 January 1996, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group I of Annex C does not exceed, annually, the sum of:

(a) Three point one per cent of its calculated level of consumption in 1989 of the controlled substances in Group I of Annex A; and

(b) Its calculated level of consumption in 1989 of the controlled substances in Group I of Annex C.

2. Each Party shall ensure that for the twelve-month period commencing on 1 January 2004, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group I of Annex C does not exceed, annually, sixty-five per cent of the sum referred to in paragraph 1 of this Article.

3. Each party shall ensure that for the twelve-month period commencing on 1 January 2010, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group I of Annex C does not exceed, annually, thirty-five per cent of the sum referred to in paragraph 1 of this Article.

4. Each Party shall ensure that for the twelve-month period commencing on 1 January 2015, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group I of Annex C does not exceed, annually, ten per cent of the sum referred to in paragraph 1 of this Article.

5. Each party shall ensure that for the twelve-month period commencing on 1 January 2020, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group of Annex C does not exceed, annually, zero point five per cent of the sum referred to in paragraph 1 of this Article.

6. Each Party shall ensure that for the twelve-month period commencing on 1 January 2030, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group I of Annex C does not exceed zero.

7. As of 1 January 1996, each party shall endeavour to ensure that:

(a) The use of controlled substances in Group I of Annex C is limited to those applications where other more environmentally suitable alternative substances or technologies are not available;

(b) The use of controlled substances in Group I of Annex C is not outside the areas of application currently met by controlled substances in Annexes A, B and C, except in rare cases for the protection of human life or human health; and

(c) Controlled substances in Group I of Annex C are selected for use in a manner that minimizes ozone depletion, in addition to meeting other environmental, safety and economic considerations.

H. *Article 2G: Hydrobromofluorocarbons*

The following Article shall be inserted after Article 2F of the Protocol:

Article 2G: Hydrobromofluorocarbons

Each party shall ensure that for the twelve-month period commencing on 1 January 1996, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group II of Annex C does not exceed zero. Each Party producing the substances shall, for the same periods, ensure that its calculated level of production of the substances does not exceed zero. This paragraph will apply save to the extent that the Parties decide to permit the level of production or consumption that is necessary to satisfy uses agreed by them to be essential.

I. *Article 2H: Methyl Bromide*

The following Article shall be inserted after Article 2G of the Protocol:

Article 2H: Methyl Bromide

Each Party shall ensure that for the twelve-month period commencing on 1 January 1995, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substance in Annex E does not exceed, annually, its calculated level of consumption in 1991. Each Party producing the substance shall, for the same periods, ensure that its calculated level of production of the substance does not exceed, annually, its calculated level of production in 1991. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten per cent of its calculated level of production in 1991. The calculated levels of consumption and production under this Article shall not include the amounts used by the Party for quarantine and pre-shipment applications.

J. *Article 3*

In Article 3 of the Protocol, for the words:

2A to 2E

there shall be substituted:

2A to 2H

and for the words:

or Annex B

there shall be substituted each time they occur:

, Annex B, Annex C or Annex E

K. *Article 4, paragraph 1 ter*

The following paragraph shall be inserted after paragraph 1 *bis* of Article 4 of the Protocol:

1 ter. Within one year of the date of entry into force of this paragraph, each Party shall ban the import of any controlled substances in Group II of Annex C from any State not party to this Protocol.

L. *Article 4, paragraph 2 ter*

The following paragraph shall be inserted after paragraph 2 *bis* of Article 4 of the Protocol:

2 ter. Commencing one year after the date of entry into force of this paragraph, each Party shall ban the export of any controlled substances in Group II of Annex C to any State not party to this Protocol.

M. *Article 4, paragraph 3 ter*

The following paragraph shall be inserted after paragraph 3 *bis* of Article 4 of the Protocol:

3 ter. Within three years of the date of entry into force of this paragraph, the Parties shall, following the procedures in Article 10 of the Convention, elaborate in an annex a list of products containing controlled substances in Group II of Annex C. Parties that have not objected to the annex in accordance with those procedures shall ban, within one year of the annex having become effective, the import of those products from any State not party to this Protocol.

N. *Article 4, paragraph 4 ter*

The following paragraph shall be inserted after paragraph 4 *bis* of Article 4 of the Protocol:

4 ter. Within five years of the date of entry into force of this paragraph, the Parties shall determine feasibility of banning or restricting, from States not party to this Protocol, the import of products produced with, but not containing, controlled substances in Group II of Annex C. If determined feasible, the Parties shall, following the procedures in Article 10 of the Convention, elaborate in an annex a list of such products. Parties that have not objected to the annex in accordance with those procedures shall ban or restrict, within one year of the annex having become effective, the import of those products from any State not party to this Protocol.

O. *Article 4, paragraphs 5, 6 and 7*

In paragraphs 5, 6 and 7 of Article 4 of the Protocol, for the words:

controlled substances

there shall be substituted:

controlled substances in Annexes A and B and Group II of Annex C

P. *Article 4, paragraph 8*

In paragraph 8 of Article 4 of the Protocol, for the words:

referred to in paragraphs 1, 1 *bis*, 3, 3 *bis*, 4 and 4 *bis* and exports referred to in paragraphs 2 and 2 *bis*

there shall be substituted:

and exports referred to in paragraphs 1 to 4 *ter* of this Article

and after the words:

Articles 2A to 2E

there shall be added:

, Article 2G

Q. *Article 4, paragraph 10*

The following paragraph shall be inserted after paragraph 9 of Article 4 of the Protocol:

10. By 1 January 1996, the Parties shall consider whether to amend this Protocol in order to extend the measures in this Article to trade in controlled substances in Group I of Annex C and in Annex E with States not party to the Protocol.

R. *Article 5, paragraph 1*

The following words shall be added at the end of paragraph 1 of Article 5 of the Protocol:

, provided that any further amendments to the adjustments or Amendments adopted at the Second Meeting of the Parties in London, 29 June 1990, shall apply to the Parties operating under this paragraph after the review provided for in paragraph B of this Article has taken place and shall be based on the conclusions of that review.

S. *Article 5, paragraph 1 bis*

The following paragraph shall be added after paragraph 1 of Article 5 of the Protocol:

1 *bis*. The Parties shall, taking into account the review referred to in paragraph 8 of this Article, the assessments made pursuant to Article 6 and any other relevant information, decide by 1 January 1996, through the procedure set forth in paragraph 9 of Article 2:

(a) With respect to paragraphs 1 to 6 of Article 2F, what base year, initial levels, control schedules and phase-out date for consumption of the controlled substances in Group I of Annex C will apply to Parties operating under paragraph 1 of this Article;

(b) With respect to Article 2G, what phase-out date for production and consumption of the controlled substances in Group II of Annex C will apply to Parties operating under paragraph 1 of this Article; and

(c) with respect to Article 2H, what base year, initial levels and control schedules for consumption and production of the controlled substance in Annex E will apply to Parties operating under paragraph 1 of this Article.

T. *Article 5, paragraph 4*

In paragraph 4 of Article 5 of the Protocol, for the words:

Articles 2A to 2E

there shall be substituted:

Articles 2A to 2H

U. *Article 5, paragraph 5*

In paragraph 5 of Article 5 of the Protocol, after the words:

set out in Articles 2A to 2E

there shall be added:

, and any control measures in Articles 2F to 2H that are decided pursuant to paragraph 1 *bis* of this Article,

V. *Article 5, paragraph 6*

In paragraph 6 of Article 5 of the Protocol, after the words:

obligations laid down in Articles 2A to 2E

there shall be added:

, or any or all obligations in Articles 2F to 2H that are decided pursuant to paragraph 1 *bis* of this Article,

W. *Article 6*

The following words shall be deleted from Article 6 of the Protocol:

Articles 2A to 2E, and the situation regarding production, imports and exports of the transitional substances in Group I of Annex C

and replaced by:

Articles 2A to 2H

X. *Article 7, paragraphs 2 and 3*

Paragraphs 2 and 3 of Article 7 of the Protocol shall be replaced by the following:

2. Each Party shall provide to the Secretariat statistical data on its production, imports and exports of each of the controlled substances

- in Annexes B and C, for the year 1989;

- in Annex E, for the year 1991,

or the best possible estimates of such data where actual data are not available, not later than three months after the date when the provisions set out in the Protocol with regard to the substances in Annexes B, C and E respectively enter into force for that Party.

3. Each Party shall provide to the Secretariat statistical data on its annual production (as defined in paragraph 5 of Article 1) of each of the controlled substances listed in Annexes A, B, C and E and, separately, for each substance,

- Amounts used for feedstocks,

- Amounts destroyed by technologies approved by the Parties, and

- Imports from and exports to Parties and non-Parties respectively,

for the year during which provisions concerning the substances in Annexes A, B, C and E respectively entered into force for that Party and for each year thereafter. Data shall be forwarded not later than nine months after the end of the year to which the data relate.

Y. *Article 7, paragraph 3 bis*

The following paragraph shall be inserted after paragraph 3 of Article 7 of the Protocol:

3 *bis*. Each party shall provide to the Secretariat separate statistical data of its annual imports and exports of each of the controlled substances listed in Group II of Annex A and Group I of Annex C that have been recycled.

Z. *Article 7, paragraph 4*

In paragraph 4 of Article 7 of the Protocol, for the words:

in paragraphs 1, 2 and 3

there shall be substituted:

in paragraphs 1, 2, 3 and 3 *bis*

AA. *Article 9, paragraph 1 (a)*

The following words shall be deleted from paragraph 1 (a) of Article 9 of the Protocol:

and transitional

BB. *Article 10, paragraph 1*

In paragraph 1 of Article 10 of the Protocol, after the words:

Articles 2A to 2E

there shall be added:

, and any control measures in Articles 2F to 2H that are decided pursuant to paragraph 1 *bis* of Article 5.

CC. *Article 11, paragraph 4 (g)*

The following words shall be deleted from paragraph 4 (g) of Article 11 of the Protocol:

and the situation regarding transitional substances

DD. *Article 17*

In Article 17 of the Protocol, for the words:

Articles 2A to 2E

there shall be substituted:

Articles 2A to 2H

EE. *Annexes*

1. *Annex C*

The following annex shall replace Annex C of the Protocol:

Annex C

Controlled substances

Group	*Substance*	*Number of Isomers*	*Ozone Depleting Potential**
Group I			
$CHFCl_2$	(HCFC-21)**	1	0.04
CHF_2Cl	(HCFC-22)**	1	0.055
CH_2FCl	(HCFC-31)	1	0.02
C_2HFCl_4	(HCFC-121)	2	0.01 - 0.04
$C_2HF_2Cl_3$	(HCFC-122)	3	0.02 - 0.08
$C_2HF_3Cl_2$	(HCFC-123)	3	0.02 - 0.06

* Where a range of ODPs is indicated, the highest value in that range shall be used for the purposes of the Protocol. The ODPs listed as a single value have been determined from calculations based on laboratory measurements. Those listed as a range are based on estimates and are less certain. The range pertains to an isomeric group. The upper value is the estimate of the ODP of the isomer with the highest ODP, and the lower value is the estimate of the ODP of the isomer with the lowest ODP.

** Identifies the most commercially viable substances with ODP values listed against them to be used for the purposes of the Protocol.

Group	*Substance*	*Number of Isomers*	*Ozone Depleting Potential**
$CHCl_2CF_3$	(HCFC-123)**	-	0.02
C_2HF_4Cl	(HCFC-124)	2	0.02 - 0.04
$CHFClCF_3$	(HCFC-124)**	-	0.022
$C_2H_2FCl_3$	(HCFC-131)	3	0.007 - 0.05
$C_2H_2F_2Cl_2$	(HCFC-132)	4	0.008 - 0.05
$C_2H_2F_3Cl$	(HCFC-133)	3	0.02 - 0.06
$C_2H_3FCl_2$	(HCFC-141)	3	0.005 - 0.07
CH_3CFCl_2	(HCFC-141b)**	-	0.11
$C_2H_3F_2Cl$	(HCFC-142)	3	0.008 - 0.07
CH_3CF_2Cl	(HCFC-142b)**	-	0.065
C_2H_4FCl	(HCFC-151)	2	0.003 - 0.005
C_3HFCl_6	(HCFC-221)	5	0.015 - 0.07
$C_3HF_2Cl_5$	(HCFC-222)	9	0.01 - 0.09
$C_3HF_3Cl_4$	(HCFC-223)	12	0.01 - 0.08
$C_3HF_4Cl_3$	(HCFC-224)	12	0.01 - 0.09
$C_3HF_5Cl_2$	(HCFC-225)	9	0.02 - 0.07
$CF_3CF_2CHCl_2$	(HCFC-225ca)**	-	0.025
CF_2ClCF_2CHClF	(HCFC-225cb)**	-	0.033
C_3HF_6Cl	(HCFC-226)	5	0.02 - 0.10
$C_3H_2FCl_5$	(HCFC-231)	9	0.05 - 0.09
$C_3H_2F_2Cl_4$	(HCFC-232)	16	0.008 - 0.10
$C_3H_2F_3Cl_3$	(HCFC-233)	18	0.007 - 0.23
$C_3H_2F_4Cl_2$	(HCFC-234)	16	0.01 - 0.28
$C_3H_2F_5Cl$	(HCFC-235)	9	0.03 - 0.52
$C_3H_3FCl_4$	(HCFC-241)	12	0.004 - 0.09
$C_3H_3F_2Cl_3$	(HCFC-242)	18	0.005 - 0.13
$C_3H_3F_3Cl_2$	(HCFC-243)	18	0.007 - 0.12
$C_3H_3F_4Cl$	(HCFC-244)	12	0.009 - 0.14
$C_3H_4FCl_3$	(HCFC-251)	12	0.001 - 0.01
$C_3H_4F_2Cl_2$	(HCFC-252)	16	0.005 - 0.04
$C_3H_4F_3Cl$	(HCFC-253)	12	0.003 - 0.03
$C_3H_5FCl_2$	(HCFC-261)	9	0.002 - 0.02
$C_3H_5F_2Cl$	(HCFC-262)	9	0.002 - 0.02
C_3H_6FCl	(HCFC-271)	5	0.001 - 0.03
Group II			
$CHFBr_2$		1	1.00
CHF_2Br	(HBFC-22B1)	1	0.74
CH_2FBr		1	0.73

Group	*Substance*	*Number of Isomers*	*Ozone Depleting Potential**
	C_2HFBr_4	2	0.03 - 0.8
	$C_2HF_2Br_3$	3	0.5 - 1.8
	$C_2HF_3Br_2$	3	0.04 - 1.6
	C_2HF_4Br	2	0.7 - 1.2
	$C_2H_2FBr_3$	3	0.1 - 1.1
	$C_2H_2F_2Br_2$	4	0.2 - 1.5
	$C_2H_2F_3Br$	3	0.7 - 1.6
	$C_2H_3FBr_2$	3	0.1 - 1.7
	$C_2H_3F_2Br$	3	0.2 - 1.1
	C_2H_4FBr	2	0.07 - 0.1
	C_3HFBr_6	5	0.3 - 1.5
	$C_3HF_2Br_5$	9	0.2 - 1.9
	$C_3HF_3Br_4$	12	0.3 - 1.8
	$C_3HF_4Br_3$	12	0.5 - 2.2
	$C_3HF_5Br_2$	9	0.9 - 2.0
	C_3HF_6Br	5	0.7 - 3.3
	$C_3H_2FBr_5$	9	0.1 - 1.9
	$C_3H_2F_2Br_4$	16	0.2 - 2.1
	$C_3H_2F_3Br_3$	18	0.2 - 5.6
	$C_3H_2F_4Br_2$	16	0.3 - 7.5
	$C_3H_2F_5Br$	8	0.9 - 14
	$C_3H_3FBr_4$	12	0.08 - 1.9
	$C_3H_3F_2Br_3$	18	0.1 - 3.1
	$C_3H_3F_3Br_2$	18	0.1 - 2.5
	$C_3H_3F_4Br$	12	0.3 - 4.4
	$C_3H_4FBr_3$	12	0.03 - 0.3
	$C_3H_4F_2Br_2$	16	0.1 - 1.0
	$C_3H_4F_3Br$	12	0.07 - 0.8
	$C_3H_5FBr_2$	9	0.04 - 0.4
	$C_3H_5F_2Br$	9	0.07 - 0.8
	C_3H_6FBr	5	0.02 - 0.7

* Where a range of ODPs is indicated, the highest value in that range shall be used for the purposes of the Protocol. The ODPs listed as a single value have been determined from calculations based on laboratory measurements. Those listed as a range are based on estimates and are less certain. The range pertains to an isomeric group. The upper value is the estimate of the ODP of the isomer with the highest ODP, and the lower value is the estimate of the ODP of the isomer with the lowest ODP.

2. *Annex E*

The following annex shall be added to the Protocol:

Annex E

Controlled substances

Group		*Substance*
Ozone-Depleting Potential		
	Group I	
0.7	CH_3Br	methyl bromide

ARTICLE 2: RELATIONSHIP TO THE 1990 AMENDMENT

No State or regional economic integration organization may deposit an instrument of ratification, acceptance, approval or accession to this Amendment unless it has previously, or simultaneously, deposited such an instrument to the Amendment adopted at the Second Meeting of the Parties in London, 29 June 1990.

ARTICLE 3: ENTRY INTO FORCE

1. This Amendment shall enter into force on 1 January 1994, provided that at least twenty instruments of ratification, acceptance or approval of the Amendment have been deposited by States or regional economic integration organizations that are Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer. In the event that this condition has not been fulfilled by that date, the Amendment shall enter into force on the ninetieth day following the date on which it has been fulfilled.

2. For the purposes of paragraph 1, any such instrument deposited by a regional economic integration organization shall not be counted as additional to those deposited by member States of such organization.

3. After the entry into force of this Amendment, as provided under paragraph 1, it shall enter into force for any other Party to the Protocol on the ninetieth day following the date of deposit of its instrument of ratification, acceptance or approval.

Adjustments to the Montreal Protocol on Substances That Deplete the Ozone Layer, Copenhagen, 1992

Done at Copenhagen 25 November 1992

Scheduled to enter into force 22 September 1993

Primary source citation: Copy of text provided by the U.S. Department of State

ADJUSTMENTS TO ARTICLES 2A AND 2B OF THE MONTREAL PROTOCOL ON SUBSTANCES THAT DEPLETE THE OZONE LAYER

The Fourth Meeting of the Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer decides, on the basis of the assessments made pursuant to Article 6 of the Protocol, to adopt adjustments and reductions of production and consumption of the controlled substances in Annex A to the Protocol as follows:

A. *Article 2A: CFCs*

Paragraphs 3 to 6 of Article 2A of the Protocol shall be replaced by the following paragraphs, which shall be numbered paragraphs 3 and 4 of Article 2A:

3. Each Party shall ensure that for the twelve-month period commencing on 1 January 1994, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group I of Annex A does not exceed, annually, twenty-five per cent of its calculated level of consumption in 1986. Each Party producing one or more of these substances shall, for the same periods, ensure that its calculated level of production of the substances does not exceed, annually, twenty-five per cent of its calculated level of production in 1986. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten per cent of its calculated level of production in 1986.

4. Each Party shall ensure that for the twelve-month period commencing on 1 January 1996, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group I of Annex A does not exceed zero. Each Party producing one or more of these substances shall, for the same periods, ensure that its calculated level of production of the substances does not exceed zero. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to fifteen per cent of its calculated level of production in 1986. This paragraph will apply save to the extent that the Parties decide to permit the level of production or consumption that is necessary to satisfy uses agreed by them to be essential.

B. *Article 2B: Halons*

Paragraphs 2 to 4 of Article 2B of the Protocol shall be replaced by the following paragraph, which shall be numbered paragraph 2 of Article 2B:

2. Each Party shall ensure that for the twelve-month period commencing on 1 January 1994, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group II of Annex A does not exceed zero. Each Party producing one or more of these substances shall, for the same periods, ensure that its calculated level of production of the substances does not exceed zero. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to fifteen per cent of its calculated level of production in 1986. This paragraph will apply save to the extent that the Parties decide to permit the level of production or consumption that is necessary to satisfy uses agreed by them to be essential.

ADJUSTMENTS TO ARTICLES 2C, 2D AND 2E OF THE MONTREAL PROTOCOL ON SUBSTANCES THAT DEPLETE THE OZONE LAYER

The Fourth Meeting of the Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer decides, on the basis of the assessments made pursuant to Article 6 of the Protocol, to adopt adjustments and reductions of production and consumption of the controlled substances in Annex B to the Protocol as follows:

A. *Article 2C: Other Fully Halogenated CFCs*

Article 2C of the Protocol shall be replaced by the following Article:

Article 2C: Other Fully Halogenated CFCs

1. Each Party shall ensure that for the twelve-month period commencing on 1 January 1993, its calculated level of consumption of the controlled substances in Group I of Annex B does not exceed, annually, eighty per cent of its calculated level of consumption in 1989. Each Party producing one or more of these substances shall, for the same period, ensure that its calculated level of production of the substances does not exceed, annually, eighty per cent of its calculated level of production in 1989. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten per cent of its calculated level of production in 1989.

2. Each Party shall ensure that for the twelve-month period commencing on 1 January 1994, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group I of Annex B does not exceed, annually, twenty-five per cent of its calculated level of consumption in 1989. Each Party producing one or more of these substances shall, for the same periods, ensure that its calculated level of production of the substances does not exceed, annually, twenty-five per cent of its calculated level of production in 1989. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten per cent of its calculated level of production in 1989.

3. Each Party shall ensure that for the twelve-month period commencing on 1 January 1996, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group I of Annex B does not exceed zero. Each Party producing one or more of these substances shall, for the same periods, ensure that its calculated level of production of the substances does not exceed zero. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to fifteen per cent of its calculated level of production in 1989. This paragraph will apply save to the extent that the Parties decide to permit the level of production or consumption that is necessary to satisfy uses agreed by them to be essential.

B. *Article 2D: Carbon Tetrachloride*

Article 2D of the Protocol shall be replaced by the following Article:

Article 2D: Carbon Tetrachloride

1. Each Party shall ensure that for the twelve-month period commencing on 1 January 1995, its calculated level of consumption of the controlled substances in Group II of Annex B does not exceed, annually, fifteen per cent of its calculated level of consumption in 1989. Each Party producing the substance shall, for the same period, ensure that its calculated level of production of the substance does not exceed, annually, fifteen per cent of its calculated level of production in 1989. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten per cent of its calculated level of production in 1989.

2. Each Party shall ensure that for the twelve-month period commencing on 1 January 1996, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substance in Group II of Annex B does not exceed zero. Each Party producing the substance shall, for the same periods, ensure that its calculated level of production of the substance does not exceed zero. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to fifteen per cent of its calculated level of production in 1989. This paragraph will apply save to the extent that the Parties decide to permit the level of production or consumption that is necessary to satisfy uses agreed by them to be essential.

C. *Article 2E: 1, 1, 1- Trichloroethane (Methyl Chloroform)*

Article 2E of the Protocol shall be replaced by the following Article:

Article 2E: 1, 1, 1- Trichloroethane (Methyl Chloroform)

1. Each Party shall ensure that for the twelve-month period commencing on 1 January 1993, its calculated level of consumption of the controlled substance in Group III of Annex B does not exceed, annually, its calculated level of consumption in 1989. Each Party producing the substance shall, for the same period, ensure that its calculated level of production of the substance does not exceed, annually, its calculated level of production in 1989. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten per cent of its calculated level of production in 1989.

2. Each Party shall ensure that for the twelve-month period commencing on 1 January 1994, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substance in Group III of Annex B does not exceed, annually, fifty per cent of its calculated level of consumption in 1989. Each Party producing the substance shall, for the same periods, ensure that its calculated level of production of the substance does not exceed, annually, fifty per cent of its calculated level of production in 1989. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten per cent of its calculated level of production in 1989.

3. Each Party shall ensure that for the twelve-month period commencing on 1 January 1996, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substance in Group III of Annex B does not exceed zero. Each Party producing the substance shall, for the same periods, ensure that its calculated level of production of the substance does not exceed zero. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to fifteen per cent of its calculated level of production for 1989. This paragraph will apply save to the extent that the Parties decide to permit the level of production or consumption that is necessary to satisfy uses agreed by them to be essential.

ASEAN Agreement on the Conservation of Nature and Natural Resources, Kuala Lumpur, 1985

Done at Kuala Lumpur 9 July 1985

Not in force

Depositary: Association of South East Asian Nations

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ASEAN Agreement on the Conservation of Nature and Natural Resources

The Government of Negara Brunei Darussalam, The Government of the Republic of Indonesia, The Government of Malaysia, The Government of the Republic of the Philippines, The Government of the Republic of Singapore and The Government of the Kingdom of Thailand, Member States of the Association of South East Asian Nations (ASEAN)

Recognizing the importance of natural resources for present and future generations;

Conscious of their ever-growing value from a scientific, cultural, social and economic point of view;

Conscious also that the interrelationship between conservation and socio-economic development implies both that conservation is necessary to ensure sustainability of development, and that socio-economic development is necessary for the achievement of conservation on a lasting basis;

Recognizing the interdependence of living resources, between them and with other natural resources, within ecosystems of which they are part;

Wishing to undertake individual and joint action for the conservation and management of their living resources and the other natural elements on which they depend;

Recognizing that international co-operation is essential to attain many of these goals;

Convinced that an essential means to achieve such concerted action is the conclusion and implementation of an Agreement;

Have agreed as follows:

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Chapter I
Conservation and Development

Article 1
Fundamental Principle

1) The Contracting Parties, within the framework of their respective national laws, undertake to adopt singly, or where necessary and appropriate through concerted action, the measures necessary to maintain essential ecological processes and life-support systems, to preserve genetic diversity, and to ensure the sustainable utilization of harvested natural resources under their jurisdiction in accordance with scientific principles and with a view to attaining the goal of sustainable development.

2) To this end they shall develop national conservation strategies, and shall co-ordinate such strategies within the framework of a conservation strategy for the Region.

Article 2
Development Planning

1) The Contracting Parties shall take all necessary measures, within the framework of their respective national laws, to ensure that conservation and management of natural resources are treated as an integral part of development planning at all stages and at all levels.

2) To that effect they shall, in the formulation of all development plans, give as full consideration to ecological factors as to economic and social ones.

3) The Contracting Parties shall, where necessary, take appropriate action with a view to conserving and managing natural resources of significant importance for two or several Contracting Parties.

Chapter II
Conservation of Species and Ecosystems

Article 3
Species — genetic diversity

1) The Contracting Parties shall, wherever possible, maintain maximum genetic diversity by taking action aimed at ensuring the survival and promoting the conservation of all species under their jurisdiction and control.

2) To that end, they shall adopt appropriate measures to conserve animal and plant species whether terrestrial, marine and freshwater, and more specifically

(a) conserve natural, terrestrial, freshwater and coastal or marine habitats;

(b) ensure sustainable use of harvested species;

(c) protect endangered species;

(d) conserve endemic species; and

(e) take all measures in their power to prevent the extinction of any species or subspecies.

3) In order to fulfil the aims of the preceding paragraph of this Article the Contracting Parties shall, in particular, endeavour to

(a) create and maintain protected areas;

(b) regulate the taking of species and prohibit unselective taking methods;

(c) regulate and, where necessary, prohibit the introduction of exotic species;

(d) promote and establish gene banks and other documented collections of animal and plant genetic resources.

Article 4
Species — sustainable use

The Contracting Parties shall pay special attention to harvested species, and, to that effect, shall endeavour to

1) develop, adopt and implement management plans for those species, based on scientific studies and aiming at

(a) preventing decrease in the size of any harvested population to levels below those which ensure its stable recruitment and the stable recruitment of those species which are dependent upon, or related to them;

(b) maintaining the ecological relationship between harvested, dependent and related populations of living resources of the ecosystem considered;

(c) restoring depleted populations to at least the levels referred to in sub-paragraph (1) of this paragraph;

(d) preventing changes or minimizing risk of changes in the ecosystem considered which are not reversible over a reasonable period of time.

2) Take the appropriate and necessary legislative and administrative measures on harvesting activities in the light of their national interest whereby

(a) such activities must conform to the management plans referred to above;

(b) the conduct of such activities is controlled by a permit system;

(c) all indiscriminate means of taking and the use of all means capable of causing local extinction of, or serious disturbance to, populations of a species or related species are prohibited;

(d) such activities are prohibited or strictly regulated at certain periods, seasons or places of importance in the life cycle of the species;

(e) such activities may be regulated more strictly, temporarily or locally in order to assist restoration of population levels or counterbalance any threat caused by special circumstances;

(f) special measures, such as restocking, are provided for whenever the conservation status of a species so warrants;

(g) trade and possession of specimens or products of specimens are regulated whenever such regulations meaningfully contribute to the implementation of the harvesting regulations.

Article 5
Species — endangered and endemic

1) Appendix I to this Agreement shall list endangered species recognized by the Contracting Parties as of prime importance to the Region and deserving special attention. The Appendix shall be adopted by a meeting of the Contracting Parties.

Accordingly, Contracting Parties shall, wherever possible,

(a) prohibit the taking of these species, except for exceptional circumstances by special allowance from the designated authorities of the Contracting Parties;

(b) regulate the trade in and possession of specimens and products of those species accordingly;

(c) especially protect habitat of those species by ensuring that sufficient portions are included in protected areas;

(d) take all other necessary measures to improve their conservation status, and restore their populations to the highest possible level.

2) Each Contracting Party shall, wherever possible, apply the above measures to species endangered at national level.

3) The Contracting Parties recognize their special responsibility in respect of species that are endemic to areas under their jurisdiction and shall undertake accordingly to take, wherever possible, all the necessary measures to maintain the population of such species at the highest possible level.

Article 6
Vegetation Cover and Forest Resources

1) The Contracting Parties shall, in view of the role of vegetation and forest cover in the functioning of natural ecosystems, take all necessary measures to ensure the conservation of the vegetation cover and in particular of the forest cover on lands under their jurisdiction.

2) They shall, in particular, endeavour to

(a) — control clearance of vegetation;

— endeavour to prevent bush and forest fires;

— prevent overgrazing by, *inter alia,* limiting grazing activities to periods and intensities that will not prevent regeneration of the vegetation;

(b) regulate mining and mineral exploration operations with a view to minimizing disturbance of vegetation and to requiring the rehabilitation of vegetation after such operations;

(c) set aside areas as forest reserves, *inter alia,* with a view to conserve the natural forest genetic resources;

(d) in reforestation and afforestation planning avoid as far as possible monoculture causing ecological imbalance;

(e) designate areas whose primary function shall be the maintenance of soil quality in the catchment considered and the regulation of the quantity and quality of the water delivered from it;

(f) ensure, to the maximum extent possible the conservation of their natural forests, particularly mangroves with a view, *inter alia,* to maintaining maximum forest species diversity;

(g) develop their forestry management plans on the basis of ecological principles with a view to maintaining potential for optimum sustained yield and avoiding depletion of the resource capital.

Article 7
Soil

1) The Contracting Parties shall, in view of the role of soil in the functioning of natural ecosystems, take measures, wherever possible towards soil conservation, improvement and rehabilitation; they shall, in particular, endeavour to take steps to prevent soil erosion and other forms of degradation, and promote measures which safeguard the processes of organic decomposition and thereby its continuing fertility.

2) To that effect, they shall, in particular, endeavour to

(a) establish land use policies aimed at avoiding losses of vegetation cover, substantial soil losses, and damages to the structure of the soil;

(b) take all necessary measures to control erosion, especially as it may affect coastal or freshwater ecosystems, lead to siltation of downstream areas such as lakes or vulnerable ecosystems such as coral reefs, or damage critical habitats, in particular that of endangered or endemic species;

(c) take appropriate measures to rehabilitate eroded or degraded soils including rehabilitation of soil affected by mineral exploitation.

Article 8
Water

1) The Contracting Parties shall, in view of the role of water in the functioning of natural ecosystems, take all appropriate measures towards the conservation of their underground and surface water resources.

2) They shall to that effect, in particular, endeavour to

(a) undertake and promote the necessary hydrological research especially with a view to ascertaining the characteristics of each watershed;

(b) regulate and control water utilization with a view to achieving sufficient and continuous supply of water for, *inter alia,* the maintenance of natural life supporting systems and aquatic fauna and flora;

(c) when planning and carrying out water resource development projects take fully into account possible effects of such projects on natural processes or on other renewable natural resources and prevent or minimize such effects.

Article 9
Air

The Contracting Parties shall, in view of the role of air in the functioning of natural ecosystems, endeavor to take all appropriate measures towards air quality management compatible with sustainable development.

Chapter III
Conservation of Ecological Processes

Article 10
Environmental Degradation

The Contracting Parties, with a view to maintaining the proper functioning of ecological processes, undertake, wherever possible, to prevent, reduce and control degradation of the natural environment and, to this end, shall endeavour to undertake, in addition to specific measures referred to in the following article;

(a) to promote environmentally sound agricultural practice by, *inter alia,* controlling the application of pesticides, fertilizers and other chemical products for agricultural use, and by ensuring that agricultural development schemes, in particular for wetland drainage or forest clearance, pay due regard to the need to protect critical habitats as well as endangered and economically important species;

(b) to promote pollution control and the development of environmentally sound industrial processes and products;

(c) to promote adequate economic or fiscal incentives for the purposes of sub-paragraphs (a) and (b) above;

(d) as far as possible to consider the originator of the activity which may lead to environmental degradation responsible for its prevention, reduction and control as well as, wherever possible, for rehabilitation and remedial measures required;

(e) to take into consideration, when authorizing activities likely to affect the natural environment, the foreseeable interactions between the new activities proposed and those already taking place in the same area, and the result of such interactions on the air, waters and soils of the area;

(f) to pay particular attention to the regulation of activities which may have adverse affects on processes which are ecologically essential or on areas which are particularly important or sensitive from an ecological point of view, such as the breeding and feeding grounds of harvested species.

Article 11
Pollution

The Contracting Parties, recognizing the adverse effect that polluting discharges or emissions may have on natural processes and the functioning of natural ecosystems as well as on each of the individual ecosystem components, especially animal and plants species, shall endeavour to prevent, reduce and control such discharges, emissions or applications, in particular by

(a) submitting activities likely to cause pollution of the air, soil, freshwater, or the marine environment, to controls which shall take into consideration both the cumulative effects of the pollutants concerned and the self-purificating aptitude of the recipient natural environment;

(b) making such controls conditional on, *inter alia,* appropriate treatment of polluting emissions; and

(c) establishing national environmental quality monitoring programmes, particular attention being paid to the effects of pollution of natural ecosystems, and co-operation in such programmes for the Region as a whole.

Chapter IV
Environmental Planning Measures

Article 12
Land use Planning

1) The Contracting Parties shall, wherever possible in the implementation of their development planning, give particular attention to the national allocation of land usage. They shall endeavour to take the necessary measures to ensure the integration of natural resource conservation into the land use planning process and shall, in the preparation and implementation of specific land use plans at all levels, give as full consideration as possible to ecological factors as to economic and social ones. In order to achieve optimum sustainable land use, they undertake to base their land use plans as far as possible on the ecological capacity of the land.

2) The Contracting Parties shall, in carrying out the provisions of paragraph (1) above, particularly consider the importance of retaining the naturally high productivity of areas such as coastal zones and wetlands.

3) They shall, where appropriate, coordinate their land use planning with a view to conserving and managing natural resources of significant importance for two or several Contracting Parties.

Article 13
Protected Areas

1) The Contracting Parties shall as appropriate establish, in areas under their jurisdiction, terrestrial, freshwater, coastal or marine protection areas for the purpose of safeguarding

— the ecological and biological processes essential to the functioning of the ecosystems of the Region;

— representative samples of all types of ecosystem of the Region;

— satisfactory population levels for the largest possible number of species of fauna and flora belonging to those ecosystems;

— areas of particular importance because of their scientific, educational, aesthetic, or cultural interest;

and taking into account their importance in particular as:

— the natural habitat of species of fauna and flora, particularly rare or endangered or endemic species;

— zones necessary for the maintenance of exploitable stocks of economically important species;

— pools of genetic material and safe refuges for species, especially endangered ones;

— sites of ecological, aesthetic or cultural interest;

— reference sources for scientific research;

— areas for environmental education.

They shall, in particular, take all measures possible in their power to preserve those areas which are of an exceptional character and are peculiar to their country or the Region as well as those which constitute the critical habitats of endangered or rare species, of species that are endemic to a small area and of species that migrate between countries of Contracting Parties.

2) Protected areas established pursuant to this Agreement shall be regulated and managed in such a way as to further the objectives for the purpose of which they have been created. Contracting Parties shall, wherever possible, prohibit within such protected areas activities which are inconsistent with such objectives.

3) Protected areas shall include

(a) National Parks

i) This expression denotes natural areas that are sufficiently large to allow for ecological self-regulation of one or several ecosystems, and which have not been substantially altered by human occupation or exploitation.

ii) National Parks shall be placed under public control, their boundaries shall not be altered nor shall any portion of any National Park be alienated except by the highest competent authority.

iii) National Parks shall be dedicated to conservation and to scientific, educational and recreational uses and the common welfare of the people.

(b) Reserves

i) This expression denotes areas set aside for the purpose of preserving a specific ecosystem, the critical habitat of certain species of fauna or flora, a water catchment area or for any other specific purpose relating to the conservation of natural resources or objects or areas of scientific, aesthetic, cultural, educational or recreational interest.

ii) After reserves have been established their boundaries shall not be altered nor shall any portion of such reserves be alienated except by the authority establishing them or by higher authority.

iii) Reserves shall be dedicated to the purposes for which they have been created and, in the light of the national interests of the Contracting Parties, any activity inconsistent with such purposes shall be prohibited.

4) Contracting Parties shall, in respect of any protected area established pursuant to this Agreement

(a) prepare a management plan and manage the area on the basis of this plan;

(b) establish, wherever appropriate, terrestrial or aquatic buffer zones that shall be located around protected areas and which, in the case of marine areas, may include coastal land areas or watersheds of rivers flowing into the protected area; in such buffer zones all activities that may have harmful consequences on the ecosystems that such areas purport to protect shall be prohibited or regulated and activities which are consistent with the purpose of the protected area shall be promoted.

5) Contracting Parties shall, in respect of any protected area established pursuant to this Agreement, endeavour to

(a) prohibit the introduction of exotic animal or plant species;

(b) prohibit the use or release of toxic substances or pollutants which could cause disturbance or damage to protected ecosystems or to the species they contain;

(c) to the maximum extent possible, prohibit or control any activity exercised outside protected areas when such an activity is likely to cause disturbance or damage to the ecosystems or species that such protected areas purport to protect.

6) Contracting Parties shall co-operate in the development of principles, objectives, criteria and guidelines for the selection, establishment and management of protected areas in the Region with a view to establishing a co-ordinated network of protected areas throughout the Region, giving particular attention to those of regional importance. An Appendix containing such principles, objectives, criteria and guidelines shall be drawn up in the light of the best scientific evidence as adapted to the conservation requirements of the Region and shall be adopted by a meeting of Contracting Parties.

7) In addition to the establishment of the protected areas referred to in paragraph 3 of this Article, Contracting Parties shall promote, through the adoption of appropriate measures, the conservation of natural areas by private owners, community or local authorities.

Article 14
Impact Assessment

1) The Contracting Parties undertake that proposals for any activity which may significantly affect the natural environment shall as far as possible be subjected to an assessment of their consequences before they are adopted, and they shall take into consideration the results of this assessment in their decision-making process.

2) In those cases where any such activities are undertaken, the Contracting Parties shall plan and carry them out so as to overcome or minimize any assessed adverse effects and shall monitor such effects with a view to taking remedial action as appropriate.

Chapter V
National Supporting Measures

Article 15
Scientific Research

The Contracting Parties shall individually or in co-operation with other Contracting Parties or appropriate international organizations, promote and, whenever possible, support scientific and technical programmes of relevance to the conservation and management of natural resources, including monitoring, research, the exchange of technical information and the evaluation of results.

Article 16
Education, Information and Participation of the Public, Training

1) The Contracting Parties shall endeavour to promote adequate coverage of conservation and management of natural resources in education programmes at all levels.

2) They shall circulate as widely as possible information on the significance of conservation measures and their relationship with sustainable development objectives, and shall, as far as possible, organize participation of the public in the planning and implementation of conservation measures.

3) Contracting Parties shall endeavour to, individually or in co-operation with other Contracting Parties or appropriate international organizations, develop the programmes and facilities necessary to train adequate and sufficient scientific and technical personnel to fulfil the aims of this Agreement.

Article 17
Administrative Machinery

1) The Contracting Parties shall identify or maintain the administrative machinery necessary to implement the provisions of this Agreement, and, where several governmental institutions are involved, create the necessary co-ordinating mechanism for the authorities dealing with designated aspects of the environment.

2) They shall endeavour to allocate sufficient funds to the task necessary for the implementation of this Agreement, as well as sufficient qualified personnel with adequate enforcement powers.

Chapter VI
International Co-operation

Article 18
Co-operative Activities

1) The Contracting Parties shall co-operate together and with the competent international organizations, with a view to co-ordinating their activities in the field of conservation of nature and management of natural resources and assisting each other in fulfilling their obligations under this Agreement.

2) To that effect, they shall endeavour

(a) to collaborate in monitoring activities;

(b) to the greatest extent possible, co-ordinate their research activities;

(c) to use comparable or standardized research techniques and procedures with a view to obtaining comparable data;

(d) to exchange appropriate scientific and technical data, information and experience, on a regular basis;

(e) whenever appropriate, to consult and assist each other with regard to measures for the implementation of this Agreement.

3) In applying the principles of co-operation and co-ordination set forth above, the Contracting Parties shall forward to the Secretariat

(a) Information of assistance in the monitoring of the biological status of the natural living resources of the Region;

(b) Information, including reports and publications of a scientific, administrative or legal nature and, in particular, information on

— measures taken by the Parties in pursuance of the provisions of this Agreement;

— the status of species included in Appendix I;

— any other matter to which the Conference of the Parties may give special priority.

Article 19
Shared Resources

1) Contracting Parties that share natural resources shall co-operate concerning their conservation and harmonious utilization, taking into account the sovereignty, rights and interests of the Contracting Parties concerned in accordance with generally accepted principles of international law.

2) To that end, they shall, in particular

(a) co-operate with a view to controlling, preventing, reducing or eliminating adverse environmental effects which may result in one Contracting Party from the utilization of such resources in another Party;

(b) endeavour to conclude bilateral or multilateral agreements in order to secure specific regulation of their conduct in respect of the resources concerned;

(c) as far as possible, make environmental assessments prior to engaging in activities with respect of shared natural resources which may create a risk of significantly affecting the environment of another sharing Contracting Party or other sharing Contracting Parties;

(d) notify in advance the other sharing Contracting Party or the other sharing Contracting Parties of pertinent details of plans to initiate, or make a change in, the conservation or utilization of the resource which can reasonably be expected to affect significantly the environment in the territory of the other Contracting Party or Contracting Parties;

(e) upon request of the other sharing Contracting Party or sharing Contracting Parties, enter into consultation concerning the above-mentioned plans;

(f) inform the other sharing Contracting Party or other sharing Contracting Parties of emergency situations or sudden grave natural events which may have repercussions on their environment;

(g) whenever appropriate, engage in joint scientific studies and assessments, with a view to facilitating co-operation with regard to environmental problems related to a shared resource, on the basis of agreed data.

3) Contracting Parties shall especially co-operate together and, where appropriate, shall endeavour to co-operate with other Contracting Parties, with a view to

(a) the conservation and management of

— border or contiguous protected areas;

— shared habitats of species listed in Appendix I;

— shared habitats of any other species of common concern;

(b) the conservation, management and, where applicable, regulation of the harvesting of species which constitute share resources

— by virtue of their migratory character, or

— because they inhabit shared habitats.

Article 20
Transfrontier Environmental Effects

1) Contracting Parties have in accordance with generally accepted principles of international law the responsibility of ensuring that activities under their jurisdiction or control do not cause damage to the environment or the natural resources under the jurisdiction of other Contracting Parties or of areas beyond the limits of national jurisdiction.

2) In order to fulfil this responsibility, Contracting Parties shall avoid to the maximum extent possible and reduce to the minimum extent possible adverse environmental effects of activities under their jurisdiction or control, including effects on natural resources, beyond the limits of their national jurisdiction.

3) To that effect, they shall endeavour

(a) to make environmental impact assessment before engaging in any activity that may create a risk of significantly affecting the environment or the natural resources of another Contracting Party or the environment or natural resources beyond national jurisdiction;

(b) to notify in advance the other Contracting Party or Contracting Parties concerned of pertinent details of plans to initiate, or make a change in, activities which can reasonably be expected to have significant effects beyond the limits of national jurisdiction;

(c) to enter into consultation concerning the above-mentioned plans upon request of the Contracting Party or Contracting Parties in question ;

(d) to inform the Contracting Party or Contracting Parties in question of emergency situations or sudden grave natural events which may have repercussion beyond national jurisdiction.

4) Contracting Parties shall, in particular, endeavour to refrain from actions which might directly or indirectly adversely affect wildlife habitats situated beyond the limits of national jurisdiction, especially habitats of species listed in Appendix I or habitats included in protected areas.

Chapter VII
International Supporting Measures

Article 21
Meeting of the Contracting Parties

1) Ordinary meetings of the Contracting Parties shall be held at least once in three years, in as far as possible in conjunction with appropriate meetings of ASEAN, and extraordinary meetings shall be held at any other time, upon the request of one Contracting Party provided that such request is supported by at least one other Party.

2) It shall be the function of the meetings of the Contracting Parties, in particular

(a) to keep under review the implementation of this Agreement and the need for other measures, in particular the Appendices;

(b) to adopt, review and amend as required any Appendix to this Agreement;

(c) to consider reports submitted by the Contracting Parties in accordance with Article 28 or any other information which may be submitted by a Party, directly or through the Secretariat;

(d) to make recommendations regarding the adoption of any Protocol or any amendment to this Agreement;

(e) to establish working groups or any other subsidiary body as required to consider any matter related to this Agreement;

(f) to consider and undertake any additional action, including the adoption of financial rules, that may be required for the achievement of the purposes of this Agreement.

Article 22
Secretariat

On the coming into force of this Agreement the Contracting Parties shall designate the Secretariat responsible for carrying out the following functions:

(a) to convene and prepare the meetings of Contracting Parties;

(b) to convene diplomatic conferences for the purpose of adopting Protocols;

(c) to transmit to Contracting Parties notifications, reports and other information received in accordance with this Agreement;

(d) to consider inquiries by, and information from, the Contracting Parties, and to consult with them on questions relating to this Agreement.

(e) to perform such other functions as may be assigned to it by the Contracting Parties;

(f) to ensure the necessary co-ordination with other competent international bodies and in particular to enter into such administrative arrangements as may be required for the effective discharge of the secretariat functions.

Article 23
National Focal Points

In order to facilitate communications with other Parties and the Secretariat, the Contracting Parties shall designate an appropriate national agency or institution responsible for co-ordinating matters arising from consultations and channelling communications between Contracting Parties or with the Secretariat.

Chapter VIII
Final Clauses

Article 24
Adoption of Protocols

1) The Contracting Parties shall co-operate in the formulation and adoption of Protocols to this Agreement, prescribing agreed measures, procedures and standards for the implementation of this Agreement.

2) The Contracting Parties, at a diplomatic conference, may adopt Protocols to this Agreement.

3) The Protocols of this Agreement shall be subject to acceptance and shall enter into force on the thirtieth day after the deposit with the Depositary of the Instruments of Acceptance of all the Contracting Parties.

Article 25
Amendment of the Agreement

1) Any Contracting Party to this Agreement may propose amendments to the Agreement. Amendments shall be adopted by a diplomatic conference which shall be convened at the request of the majority of the Contracting Parties.

2) Amendments to this Agreement shall be adopted by a consensus of the Contracting Parties.

3) Acceptance of amendments shall be notified to the Depositary in writing and shall enter into force on the thirtieth day following the receipt by the Depositary of notification of the acceptance by all the Contracting Parties.

4) After the entry into force of an amendment to this Agreement any new Contracting Party to this Agreement shall become a Contracting Party to this Agreement as amended.

Article 26
Appendices and Amendments to Appendices

1) Appendices to this Agreement shall form an integral part of the Agreement.

2) Amendments to an Appendix:

(a) Any Contracting Party may propose amendments to an Appendix at a meeting of the Contracting Parties;

(b) Such amendments shall be adopted by a consensus of the Contracting Parties;

(c) The Depositary shall without delay communicate the amendment so adopted to all Contracting Parties.

3) The adoption and entry into force of a new Appendix to this Agreement shall be subject to the same procedure as for the adoption and entry into force of an amendment to an Appendix as provided for in paragraph (2) of this Article, provided that the new Appendix shall not enter into force until such time as the amendment to the Agreement enters into force.

Article 27
Rules of Procedure

The Contracting Parties shall adopt rules of procedure for their meetings.

Article 28
Reports

The Contracting Parties shall transmit to the Secretariat reports on the measures adopted in implementation of this Agreement in such form and at such intervals as the meetings of Contracting Parties may determine.

Article 29
Relationships with Other Agreements

The provisions of this Agreement shall in no way affect the rights and obligations of any Contracting Party with regard to any existing treaty, convention or agreement.

Article 30
Settlement of Disputes

Any dispute between the Contracting Parties arising out of the interpretation or implementation of this Agreement shall be settled amicably by consultation or negotiation.

Article 31
Ratification

This Agreement shall be subject to ratification by the Contracting Parties. The Instruments of Ratification shall be deposited with the Secretary-General of the ASEAN Secretariat, who shall assume the functions of Depositary.

Article 32
Accession

1) After the entry into force of the Agreement, any Member State may accede to this Agreement, subject to prior approval by the Contracting Parties to this Agreement.

2) Instrument of accession shall be deposited with the Depositary.

Article 33
Entry into Force

1) This Agreement shall enter into force on the thirtieth day after the deposit of the sixth Instruments of Ratification.

2) Thereafter, this Agreement shall enter into force with respect to any Contracting Party on the thirtieth day following the date of deposit of the instrument of accession by that Contracting Party.

Article 34
Responsibility of the Depositary

The Depositary shall inform the Governments which have signed this Agreement:

(a) of the deposit of instruments of ratification, acceptance or accession;

(b) of the date on which the Agreement will come into force.

Article 35
Deposit and Registration

1) The present Agreement shall be deposited with the Depositary who shall transmit certified true copies thereof to the Governments of all Contracting Parties which have signed the present Agreement or acceded to it.

2) As soon as the present Agreement enters into force, the text shall be transmitted by the Depositary to the Secretary-General of the United Nations for registration and publication, in accordance with Article 102 of the Charter of the United Nations.

Convention on Environmental Impact Assessment in a Transboundary Context, Espoo, 1991

Done at Espoo 25 February 1991

Not in force

Depositary: Secretary-General of the United Nations

Primary source citation: Copy of text provided by the United Nations

CONVENTION ON ENVIRONMENTAL IMPACT ASSESSMENT IN A TRANSBOUNDARY CONTEXT

The Parties to this Convention,

Aware of the interrelationship between economic activities and their environmental consequences,

Affirming the need to ensure environmentally sound and sustainable development,

Determined to enhance international co-operation in assessing environmental impact in particular in a transboundary context,

Mindful of the need and importance to develop anticipatory policies and of preventing, mitigating and monitoring significant adverse environmental impact in general and more specifically in a transboundary context,

Recalling the relevant provisions of the Charter of the United Nations, the Declaration of the Stockholm Conference on the Human Environment, the Final Act of the Conference on Security and Co-operation in Europe (CSCE) and the Concluding Documents of the Madrid and Vienna Meetings of Representatives of the participating States of the CSCE,

Commending the ongoing activities of States to ensure that, through their national legal and administrative provisions and their national policies, environmental impact assessment is carried out,

Conscious of the need to give explicit consideration to environmental factors at an early stage in the decision-making process by applying environmental impact assessment, at all appropriate administrative levels, as a necessary tool to improve the quality of information presented to decision makers so that environmentally sound decisions can be made paying careful attention to minimizing significant adverse impact, particularly in a transboundary context,

Mindful of the efforts of international organizations to promote the use of environmental impact assessment both at the national and international levels, and taking into account work on environmental impact assessment carried out under the auspices of the United Nations Economic Commission for Europe, in particular results achieved by the Seminar on Environmental Impact Assessment (September 1987, Warsaw, Poland) as well as noting the Goals

and principles on environmental impact assessment adopted by the Governing Council of the United Nations Environment Programme, and the Ministerial Declaration on Sustainable Development (May 1990, Bergen, Norway),

Have agreed as follows:

Article 1

DEFINITIONS

For the purposes of this Convention,

(i) "Parties" means, unless the text otherwise indicates, the Contracting Parties to this Convention;

(ii) "Party of origin" means the Contracting Party or Parties to this Convention under whose jurisdiction a proposed activity is envisaged to take place;

(iii) "Affected Party" means the Contracting Party or Parties to this Convention likely to be affected by the transboundary impact of a proposed activity;

(iv) "Concerned Parties" means the Party of origin and the affected Party of an environmental impact assessment pursuant to this Convention;

(v) "Proposed activity" means any activity or any major change to an activity subject to a decision of a competent authority in accordance with an applicable national procedure;

(vi) "Environmental impact assessment" means a national procedure for evaluating the likely impact of a proposed activity on the environment;

(vii) "Impact" means any effect caused by a proposed activity on the environment including human health and safety, flora, fauna, soil, air, water, climate, landscape and historical monuments or other physical structures or the interaction among these factors; it also includes effects on cultural heritage or socio-economic conditions resulting from alterations to those factors;

(viii) "Transboundary impact" means any impact, not exclusively of a global nature, within an area under the jurisdiction of a Party caused by a proposed activity the physical origin of which is situated wholly or in part within the area under the jurisdiction of another Party;

(ix) "Competent authority" means the national authority or authorities designated by a Party as responsible for performing the tasks covered by this Convention and/or the authority or authorities entrusted by a Party with decision-making powers regarding a proposed activity;

(x) "The Public" means one or more natural or legal persons.

Article 2

GENERAL PROVISIONS

1. The Parties shall, either individually or jointly, take all appropriate and effective measures to prevent, reduce and control significant adverse transboundary environmental impact from proposed activities.

2. Each Party shall take the necessary legal, administrative or other measures to implement the provisions of this Convention, including, with respect to proposed activities listed in Appendix I that are likely to cause significant adverse transboundary impact, the establishment of an environmental impact assessment procedure that permits public participation and preparation of the environmental impact assessment documentation described in Appendix II.

3. The Party of origin shall ensure that in accordance with the provisions of this Convention an environmental impact assessment is undertaken prior to a decision to authorize or undertake a proposed activity listed in Appendix I that is likely to cause a significant adverse transboundary impact.

4. The Party of origin shall, consistent with the provisions of this Convention, ensure that affected Parties are notified of a proposed activity listed in Appendix I that is likely to cause a significant adverse transboundary impact.

5. Concerned Parties shall, at the initiative of any such Party, enter into discussions on whether one or more proposed activities not listed in Appendix I is or are likely to cause a significant adverse transboundary impact and thus should be treated as if it or they were so listed. Where those Parties so agree, the activity or activities shall be thus treated. General guidance for identifying criteria to determine significant adverse impact is set forth in Appendix III.

6. The Party of origin shall provide, in accordance with the provisions of this Convention, an opportunity to the public in the areas likely to be affected to participate in relevant environmental impact assessment procedures regarding proposed activities and shall ensure that the opportunity provided to the public of the affected Party is equivalent to that provided to the public of the Party of origin.

7. Environmental impact assessments as required by this Convention shall, as a minimum requirement, be undertaken at the project level of the Proposed activity. To the extent appropriate, the Parties shall endeavour to apply the principles of environmental impact assessment to policies, plans and programmes.

8. The provisions of this Convention shall not affect the right of Parties to implement national laws, regulations, administrative provisions or accepted legal practices protecting information the supply of which would be prejudicial to industrial and commercial secrecy or national security.

9. The provisions of this Convention shall not affect the right of particular Parties to implement, by bilateral or multilateral agreement where appropriate, more stringent measures than those of this Convention.

10. The provisions of this Convention shall not prejudice any obligations of the Parties under international law with regard to activities having or likely to have a transboundary impact.

Article 3

NOTIFICATION

1. For a proposed activity listed in Appendix I that is likely to cause a significant adverse transboundary impact, the Party of origin shall, for the purposes of ensuring adequate and effective consultations under Article 5, notify any Party which it considers may be an affected Party as early as possible and no later than when informing its own public about that proposed activity.

2. This notification shall contain, inter alia:

(a) Information on the proposed activity, including any available information on its possible transboundary impact;

(b) The nature of the possible decision; and

(c) An indication of a reasonable time within which a response under paragraph 3 of this Article is required, taking into account the nature of the proposed activity;

and may include the information set out in paragraph 5 of this Article.

3. The affected Party shall respond to the Party of origin within the time specified in the notification, acknowledging receipt of the notification, and shall indicate whether it intends to participate in the environmental impact assessment procedure.

4. If the affected Party indicates that it does not intend to participate in the environmental impact assessment procedure, or if it does not respond within the time specified in the notification, the provisions in paragraphs 5, 6, 7 and 8 of this Article and in Articles 4 to 7 will not apply. In such circumstances the right of a Party of origin to determine whether to carry out an environmental impact assessment on the basis of its national law and practice is not prejudiced.

5. Upon receipt of a response from the affected Party indicating its desire to participate in the environmental impact assessment procedure, the Party of origin shall, if it has not already done so, provide to the affected Party:

(a) Relevant information regarding the environmental impact assessment procedure, including an indication of the time schedule for transmittal of comments; and

(b) Relevant information on the proposed activity and its possible significant adverse transboundary impact.

6. An affected Party shall, at the request of the Party of origin, provide the latter with reasonably obtainable information relating to the potentially affected environment under the jurisdiction of the affected Party, where such information is necessary for the preparation of the environmental impact assessment documentation. The information shall be furnished promptly and, as appropriate, through a joint body where one exists.

7. When a Party considers that it would be affected by a significant adverse transboundary impact of a proposed activity listed in Appendix I, and when no notification has taken place in accordance with paragraph 1 of this Article, the concerned Parties shall, at the request of the affected Party, exchange sufficient information for the purposes of holding discussions on whether there is likely to be a significant adverse transboundary impact. If those Parties agree that there is likely to be a significant adverse transboundary impact, the provisions of this Convention shall apply accordingly. If those Parties cannot agree whether there is likely to be a significant adverse transboundary impact, any such Party may submit that question to an inquiry commission in accordance with the provisions of Appendix IV to advise on the likelihood of significant adverse transboundary impact, unless they agree on another method of settling this question.

8. The concerned Parties shall ensure that the public of the affected Party in the areas likely to be affected be informed of, and be provided with possibilities for making comments or objections on, the proposed activity, and for the transmittal of these comments or objections to the competent authority of the Party of origin, either directly to this authority or, where appropriate, through the Party of origin.

Article 4

PREPARATION OF THE ENVIRONMENTAL IMPACT ASSESSMENT DOCUMENTATION

1. The environmental impact assessment documentation to be submitted to the competent authority of the Party of origin shall contain, as a minimum, the information described in Appendix II.

2. The Party of origin shall furnish the affected Party, as appropriate through a joint body where one exists, with the environmental impact assessment documentation. The concerned Parties shall arrange for distribution of the documentation to the authorities and the public of the affected Party in the areas likely to be affected and for the submission of comments to the competent authority of the Party of origin, either directly to this authority or, where appropriate, through the Party of origin within a reasonable time before the final decision is taken on the proposed activity.

Article 5

CONSULTATIONS ON THE BASIS OF THE ENVIRONMENTAL IMPACT ASSESSMENT DOCUMENTATION

The Party of origin shall, after completion of the environmental impact assessment documentation, without undue delay enter into consultations with the affected Party concerning, inter alia, the potential transboundary impact of the proposed activity and measures to reduce or eliminate its impact. Consultations may relate to:

(a) Possible alternatives to the proposed activity, including the no-action alternative and possible measures to mitigate significant adverse transboundary impact and to monitor the effects of such measures at the expense of the Party of origin;

(b) Other forms of possible mutual assistance in reducing any significant adverse transboundary impact of the proposed activity; and

(c) Any other appropriate matters relating to the proposed activity.

The Parties shall agree, at the commencement of such consultations, on a reasonable time-frame for the duration of the consultation period. Any such consultations may be conducted through an appropriate joint body, where one exists.

Article 6

FINAL DECISION

1. The Parties shall ensure that, in the final decision on the proposed activity, due account is taken of the outcome of the environmental impact assessment, including the environmental impact assessment documentation, as well as the comments thereon received pursuant to Article 3, paragraph 8 and Article 4, paragraph 2, and the outcome of the consultations as referred to in Article 5.

2. The Party of origin shall provide to the affected Party the final decision on the proposed activity along with the reasons and considerations on which it was based.

3. If additional information on the significant transboundary impact of a proposed activity, which was not available at the time a decision was made with respect to that activity and which could have materially affected the decision, becomes available to a concerned Party before work on that activity commences, that Party shall immediately inform the other concerned Party or Parties. If one of the concerned Parties so requests, consultations shall be held as to whether the decision needs to be revised.

Article 7

POST-PROJECT ANALYSIS

1. The concerned Parties, at the request of any such Party, shall determine whether, and if so to what extent, a post-project analysis shall be carried out, taking into account the likely significant adverse transboundary impact of the activity for which an environmental impact assessment has been undertaken pursuant to this Convention. Any post-project analysis undertaken shall include, in particular, the surveillance of the activity and the determination of any adverse transboundary impact. Such surveillance and determination may be undertaken with a view to achieving the objectives listed in Appendix V.

2. When, as a result of post-project analysis, the Party of origin or the affected Party has reasonable grounds for concluding that there is a significant adverse transboundary impact or factors have been discovered which may result

in such an impact, it shall immediately inform the other Party. The concerned Parties shall then consult on necessary measures to reduce or eliminate the impact.

Article 8

BILATERAL AND MULTILATERAL CO-OPERATION

The Parties may continue existing or enter into new bilateral or multilateral agreements or other arrangements in order to implement their obligations under this Convention. Such agreements or other arrangements may be based on the elements listed in Appendix VI.

Article 9

RESEARCH PROGRAMMES

The Parties shall give special consideration to the setting up, or intensification of, specific research programmes aimed at:

(a) Improving existing qualitative and quantitative methods for assessing the impacts of proposed activities;

(b) Achieving a better understanding of cause-effect relationships and their role in integrated environmental management;

(c) Analysing and monitoring the efficient implementation of decisions on proposed activities with the intention of minimizing or preventing impacts;,

(d) Developing methods to stimulate creative approaches in the search for environmentally sound alternatives to proposed activities, production and consumption patterns;

(e) Developing methodologies for the application of the principles of environmental impact assessment at the macro-economic level.

The results of the programmes listed above shall be exchanged by the Parties.

Article 10

STATUS OF THE APPENDICES

The Appendices attached to this Convention form an integral part of the Convention.

Article 11

MEETING OF PARTIES

1. The Parties shall meet, so far as possible, in connection with the annual sessions of the Senior Advisers to ECE Governments on Environmental and Water Problems. The first meeting of the Parties shall be convened not later than one year after the date of the entry into force of this Convention. Thereafter, meetings of the Parties shall be held at such other times as may be deemed necessary by a meeting of the Parties, or at the written request of any Party, provided that, within six months of the request being communicated to them by the secretariat, it is supported by at least one third of the Parties.

2. The Parties shall keep under continuous review the implementation of this Convention, and, with this purpose in mind, shall:

(a) Review the policies and methodological approaches to environmental impact assessment by the Parties with a view to further improving environmental impact assessment procedures in a transboundary context;

(b) Exchange information regarding experience gained in concluding and implementing bilateral and multilateral agreements or other arrangements regarding the use of environmental impact assessment in a transboundary context to which one or more of the Parties are party;

(c) Seek, where appropriate, the services of competent international bodies and scientific committees in methodological and technical aspects pertinent to the achievement of the purposes of this Convention;

(d) At their first meeting, consider and by consensus adopt rules of procedure for their meetings;

(e) Consider and, where necessary, adopt proposals for amendments to this Convention;

(f) Consider and undertake any additional action that may be required for the achievement of the purposes of this Convention.

Article 12

RIGHT TO VOTE

1. Each Party to this Convention shall have one vote.

2. Except as provided for in paragraph 1 of this Article, regional economic integration organizations, in matters within their competence, shall exercise their right to vote with a number of votes equal to the number of their member States which are Parties to this Convention. Such organizations shall not exercise their right to vote if their member States exercise theirs, and vice versa.

Article 13

SECRETARIAT

The Executive Secretary of the Economic Commission for Europe shall carry out the following secretariat functions:

(a) The convening and preparing of meetings of the Parties;

(b) The transmission of reports and other information received in accordance with the provisions of this Convention to the Parties; and

(c) The performance of other functions as may be provided for in this Convention or as may be determined by the Parties.

Article 14

AMENDMENTS TO THE CONVENTION

1. Any Party may propose amendments to this Convention.

2. Proposed amendments shall be submitted in writing to the secretariat, which shall communicate them to all Parties. The proposed amendments shall be discussed at the next meeting of the Parties, provided these proposals have been circulated by the secretariat to the Parties at least ninety days in advance.

3. The Parties shall make every effort to reach agreement on any proposed amendment to this Convention by consensus. If all efforts at consensus have been exhausted, and no agreement reached, the amendment shall as a last resort be adopted by a three-fourths majority vote of the Parties present and voting at the meeting.

4. Amendments to this Convention adopted in accordance with Paragraph 3 of this Article shall be submitted by the Depositary to all Parties for ratification, approval or acceptance. They shall enter into force for Parties having ratified, approved or accepted them on the ninetieth day after the receipt by the Depositary of notification of their ratification, approval or acceptance by at least three fourths of these Parties. Thereafter they shall enter into force for any other Party on the ninetieth day after that Party deposits its instrument of ratification, approval or acceptance of the amendments.

5. For the purpose of this Article, "Parties present and voting" means Parties present and casting an affirmative or negative vote.

6. The voting procedure set forth in paragraph 3 of this Article is not intended to constitute a precedent for future agreements negotiated within the Economic Commission for Europe.

Article 15

SETTLEMENT OF DISPUTES

1. If a dispute arises between two or more Parties about the interpretation or application of this Convention, they shall seek a solution by negotiation or by any other method of dispute settlement acceptable to the parties to the dispute.

2. When signing, ratifying, accepting, approving or acceding to this Convention, or at any time thereafter, a Party may declare in writing to the Depositary that for a dispute not resolved in accordance with paragraph 1 of this Article, it accepts one or both of the following means of dispute settlement as compulsory in relation to any Party accepting the same obligation:

(a) Submission of the dispute to the International Court of Justice;

(b) Arbitration in accordance with the procedure set out in Appendix VII.

3. If the parties to the dispute have accepted both means of dispute settlement referred to in paragraph 2 of this Article, the dispute may be submitted only to the International Court of Justice, unless the parties agree otherwise.

Article 16

SIGNATURE

This Convention shall be open for signature at Espoo (Finland) from 25 February to 1 March 1991 and thereafter at United Nations Headquarters in New York until 2 September 1991 by States members of the Economic Commission for Europe as well as States having consultative status with the Economic Commission for Europe pursuant to paragraph 8 of the Economic and Social Council resolution 36 (IV) of 28 March 1947, and by regional economic integration organizations constituted by sovereign States members of the Economic Commission for Europe to which their member States have transferred competence in respect of matters governed by this Convention, including the competence to enter into treaties in respect of these matters.

Article 17

RATIFICATION, ACCEPTANCE, APPROVAL AND ACCESSION

1. This Convention shall be subject to ratification, acceptance or approval by signatory States and regional economic integration organizations.

2. This Convention shall be open for accession as from 3 September 1991 by the States and organizations referred to in Article 16.

3. The instruments of ratification, acceptance, approval or accession shall be deposited with the Secretary-General of the United Nations, who shall perform the functions of Depositary.

4. Any organization referred to in Article 16 which becomes a Party to this Convention without any of its member States being a Party shall be bound by all the obligations under this Convention. In the case of such organizations, one or more of whose member States is a Party to this Convention, the organization and its member States shall decide on their respective responsibilities for the performance of their obligations under this Convention. In such cases, the organization and the member States shall not be entitled to exercise rights under this Convention concurrently.

5. In their instruments of ratification, acceptance, approval or accession, the regional economic integration organizations referred to in Article 16 shall declare the extent of their competence with respect to the matters governed by this Convention. These organizations shall also inform the Depositary of any relevant modification to the extent of their competence.

Article 18

ENTRY INTO FORCE

1. This Convention shall enter into force on the ninetieth day after the date of deposit of the sixteenth instrument of ratification, acceptance, approval or accession.

2. For the Purposes of Paragraph 1 of this Article, any instrument deposited by a regional economic integration organization shall not be counted as additional to those deposited by States members of such an organization.

3. For each State or organization referred to in Article 16 which ratifies, accepts or approves this Convention or accedes thereto after the deposit of the sixteenth instrument of ratification, acceptance, approval or accession, this Convention shall enter into force on the ninetieth day after the date of deposit by such State or organization of its instrument of ratification, acceptance, approval or accession.

Article 19

WITHDRAWAL

At any time after four years from the date on which this Convention has come into force with respect to a Party, that Party may withdraw from this Convention by giving written notification to the Depositary. Any such withdrawal shall take effect on the ninetieth day after the date of its receipt by the Depositary. Any such withdrawal shall not affect the application of Articles 3 to 6 of this Convention to a proposed activity in respect of which a notification has been made pursuant to Article 3, paragraph 1, or a request has been made pursuant to Article 3, paragraph 7, before such withdrawal took effect.

Article 20

AUTHENTIC TEXTS

The original of this Convention, of which the English, French and Russian texts are equally authentic, shall be deposited with the Secretary-General of the United Nations.

IN WITNESS WHEREOF the undersigned, being duly authorized thereto, have signed this Convention.

DONE at Espoo (Finland), this twenty-fifth day of February one thousand nine hundred and ninety-one.

APPENDIX I

LIST OF ACTIVITIES

1. Crude oil refineries (excluding undertakings manufacturing only lubricants from crude oil) and installations for the gasification and liquefaction of 500 tonnes or more of coal or bituminous shale per day.

2. Thermal power stations and other combustion installations with a heat output of 300 megawatts or more and nuclear power stations and other nuclear reactors (except research installations for the production and conversion of fissionable and fertile materials, whose maximum power does not exceed 1 kilowatt continuous thermal load).

3. Installations solely designed for the production or enrichment of nuclear fuels, for the reprocessing of irradiated nuclear fuels or for the storage, disposal and processing of radioactive waste.

4. Major installations for the initial smelting of cast-iron and steel and for the production of non-ferrous metals.

5. Installations for the extraction of asbestos and for the processing and transformation of asbestos and products containing asbestos: for asbestos-cement products, with an annual production of more than 20,000 tonnes finished product; for friction material, with an annual production of more than 50 tonnes finished product; and for other asbestos utilization of more than 200 tonnes per year.

6. Integrated chemical installations.

7. Construction of motorways, express roads */ and lines for long-distance railway traffic and of airports with a basic runway length of 2,100 metres or more.

8. Large-diameter oil and gas pipelines.

9. Trading ports and also inland waterways and ports for inland-waterway traffic which permit the passage of vessels of over 1,350 tonnes.

10. Waste-disposal installations for the incineration, chemical treatment or landfill of toxic and dangerous wastes.

11. Large dams and reservoirs.

12. Groundwater abstraction activities in cases where the annual volume of water to be abstracted amounts to 10 million cubic metres or more.

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*/ For the purposes of this Convention:

- "Motorway" means a road specially designed and built for motor traffic, which does not serve properties bordering on it, and which:
  (a) Is provided, except at special points or temporarily, with separate carriageways for the two directions of traffic, separated from each other by a dividing strip not intended for traffic or, exceptionally, by other means;
  (b) Does not cross at level with any road, railway or tramway track, or footpath; and
  (c) Is specially sign-posted as a motorway.
- "Express road" means a road reserved for motor traffic accessible only from interchanges or controlled junctions and on which, in particular, stopping and parking are prohibited on the running carriageway(s).

13. Pulp and paper manufacturing of 200 air-dried metric tonnes or more per day.

14. Major mining, on-site extraction and processing of metal ores or coal.

15. Offshore hydrocarbon production.

16. Major storage facilities for petroleum, petrochemical and chemical products.

17. Deforestation of large areas.

APPENDIX II

CONTENT OF THE ENVIRONMENTAL IMPACT ASSESSMENT DOCUMENTATION

Information to be included in the environmental impact assessment documentation shall, as a minimum, contain, in accordance with Article 4:

(a) A description of the proposed activity and its purpose;

(b) A description, where appropriate, of reasonable alternatives (for example, locational or technological) to the proposed activity and also the no-action alternative;

(c) A description of the environment likely to be significantly affected by the proposed activity and its alternatives;

(d) A description of the potential environmental impact of the proposed activity and its alternatives and an estimation of its significance;

(e) A description of mitigation measures to keep adverse environmental impact to a minimum;

(f) An explicit indication of predictive methods and underlying assumptions as well as the relevant environmental data used;

(g) An identification of gaps in knowledge and uncertainties encountered in compiling the required information;

(h) Where appropriate, an outline for monitoring and management programmes and any plans for post-project analysis; and

(i) A non-technical summary including a visual presentation as appropriate (maps, graphs, etc.).

APPENDIX III

GENERAL CRITERIA TO ASSIST IN THE DETERMINATION OF THE ENVIRONMENTAL SIGNIFICANCE OF ACTIVITIES NOT LISTED IN APPENDIX I

1. In considering proposed activities to which Article 2, paragraph 5, applies, the concerned Parties may consider whether the activity is likely to have a significant adverse transboundary impact in particular by virtue of one or more of the following criteria:

(a) Size: proposed activities which are large for the type of the activity;

(b) Location: proposed activities which are located in or close to an area of special environmental sensitivity or importance (such as wetlands designated under the Ramsar Convention, national parks, nature reserves, sites of special scientific interest, or sites of archaeological, cultural or historical importance); also, proposed activities in locations where the characteristics of proposed development would be likely to have significant effects on the population;

(c) Effects: proposed activities with particularly complex and potentially adverse effects, including those giving rise to serious effects on humans or on valued species or organisms, those which threaten the existing or potential use of an affected area and those causing additional loading which cannot be sustained by the carrying capacity of the environment.

2. The concerned Parties shall consider for this purpose proposed activities which are located close to an international frontier as well as more remote proposed activities which could give rise to significant transboundary effects far removed from the site of development.

APPENDIX IV

INQUIRY PROCEDURE

1. The requesting Party or Parties shall notify the secretariat that it or they submit(s) the question of whether a proposed activity listed in Appendix I is likely to have a significant adverse transboundary impact to an inquiry commission established in accordance with the provisions of this Appendix. This notification shall state the subject-matter of the inquiry. The secretariat shall notify immediately all Parties to this Convention of this submission.

2. The inquiry commission shall consist of three members. Both the requesting party and the other party to the inquiry procedure shall appoint a scientific or technical expert, and the two experts so appointed shall designate by common agreement the third expert, who shall be the president of the inquiry commission. The latter shall not be a national of one of the parties to the inquiry procedure, nor have his or her usual place of residence in the territory of one of these parties, nor be employed by any of them, nor have dealt with the matter in any other capacity.

3. If the president of the inquiry commission has not been designated within two months of the appointment of the second expert, the Executive Secretary of the Economic Commission for Europe shall, at the request of either party, designate the president within a further two-month period.

4. If one of the parties to the inquiry procedure does not appoint an expert within one month of its receipt of the notification by the secretariat, the other party may inform the Executive Secretary of the Economic Commission for Europe, who shall designate the president of the inquiry commission within a further two-month period. Upon designation, the president of the inquiry commission shall request the party which has not appointed an expert to do so within one month. After such a period, the president shall inform the Executive Secretary of the Economic Commission for Europe, who shall make this appointment within a further two-month period.

5. The inquiry commission shall adopt its own rules of procedure.

6. The inquiry commission may take all appropriate measures in order to carry out its functions.

7. The parties to the inquiry procedure shall facilitate the work of the inquiry commission and, in particular, using all means at their disposal, shall:

(a) Provide it with all relevant documents, facilities and information; and

(b) Enable it, where necessary, to call witnesses or experts and receive their evidence.

8. The parties and the experts shall protect the confidentiality of any information they receive in confidence during the work of the inquiry commission.

9. If one of the parties to the inquiry procedure does not appear before the inquiry commission or fails to present its case, the other party may request the inquiry commission to continue the proceedings and to complete its work. Absence of a party or failure of a party to present its case shall not constitute a bar to the continuation and completion of the work of the inquiry commission.

10. Unless the inquiry commission determines otherwise because of the particular circumstances of the matter, the expenses of the inquiry commission, including the remuneration of its members, shall be borne by the parties to the inquiry procedure in equal shares. The inquiry commission shall keep a record of all its expenses, and shall furnish a final statement thereof to the parties.

11. Any Party having an interest of a factual nature in the subject-matter of the inquiry procedure, and which may be affected by an opinion in the matter, may intervene in the proceedings with the consent of the inquiry commission.

12. The decisions of the inquiry commission on matters of procedure shall be taken by majority vote of its members. The final opinion of the inquiry commission shall reflect the view of the majority of its members and shall include any dissenting view.

13. The inquiry commission shall present its final opinion within two months of the date on which it was established unless it finds it necessary to extend this time limit for a period which should not exceed two months.

14. The final opinion of the inquiry commission shall be based on accepted scientific principles. The final opinion shall be transmitted by the inquiry commission to the parties to the inquiry procedure and to the secretariat.

APPENDIX V

POST-PROJECT ANALYSIS

Objectives include:

(a) Monitoring compliance with the conditions as set out in the authorization or approval of the activity and the effectiveness of mitigation measures;

(b) Review of an impact for proper management and in order to cope with uncertainties;

(c) Verification of past predictions in order to transfer experience to future activities of the same type.

APPENDIX VI

ELEMENTS FOR BILATERAL AND MULTILATERAL CO-OPERATION

1. Concerned Parties may set up, where appropriate, institutional arrangements or enlarge the mandate of existing institutional arrangements within the framework of bilateral and multilateral agreements in order to give full effect to this Convention.

2. Bilateral and multilateral agreements or other arrangements may include:

(a) Any additional requirements for the implementation of this Convention, taking into account the specific conditions of the subregion concerned;

(b) Institutional, administrative and other arrangements, to be made on a reciprocal and equivalent basis;

(c) Harmonization of their policies and measures for the protection of the environment in order to attain the greatest possible similarity in standards and methods related to the implementation of environmental impact assessment;

(d) Developing, improving, and/or harmonizing methods for the identification, measurement, prediction and assessment of impacts, and for post-project analysis;

(e) Developing and/or improving methods and programmes for the collection, analysis, storage and timely dissemination of comparable data regarding environmental quality in order to provide input into environmental impact assessment;

(f) The establishment of threshold levels and more specified criteria for defining the significance of transboundary impacts related to the location, nature or size of proposed activities, for which environmental impact assessment in accordance with the provisions of this Convention shall be applied; and the establishment of critical loads of transboundary pollution;

(g) Undertaking, where appropriate, joint environmental impact assessment, development of joint monitoring programmes, intercalibration of monitoring devices and harmonization of methodologies with a view to rendering the data and information obtained compatible.

APPENDIX VII

ARBITRATION

1. The claimant Party or Parties shall notify the secretariat that the Parties have agreed to submit the dispute to arbitration pursuant to Article 15, paragraph 2, of this Convention. The notification shall state the subject-matter of arbitration and include, in particular, the Articles of this Convention, the interpretation or application of which are at issue. The secretariat shall forward the information received to all Parties to this Convention.

2. The arbitral tribunal shall consist of three members. Both the claimant Party or Parties and the other Party or Parties to the dispute shall appoint an arbitrator, and the two arbitrators so appointed shall designate by common agreement the third arbitrator, who shall be the president of the arbitral tribunal. The latter shall not be a national of one of the parties to the dispute, nor have his or her usual place of residence in the territory of one of these parties, nor be employed by any of them, nor have dealt with the case in any other capacity.

3. If the president of the arbitral tribunal has not been designated within two months of the appointment of the second arbitrator, the Executive Secretary of the Economic Commission for Europe shall, at the request of either party to the dispute, designate the president within a further two-month period.

4. If one of the parties to the dispute does not appoint an arbitrator within two months of the receipt of the request, the other party may inform the Executive Secretary of the Economic Commission for Europe, who shall designate the president of the arbitral tribunal within a further two-month period. Upon designation, the president of the arbitral tribunal shall request the party which has not appointed an arbitrator to do so within two months. After such a period, the president shall inform the Executive Secretary of the Economic Commission for Europe, who shall make this appointment within a further two-month period.

5. The arbitral tribunal shall render its decision in accordance with international law and in accordance with the provisions of this Convention.

6. Any arbitral tribunal constituted under the provisions set out herein shall draw up its own rules of procedure.

7. The decisions of the arbitral tribunal, both on procedure and on substance, shall be taken by majority vote of its members.

8. The tribunal may take all appropriate measures in order to establish the facts.

9. The parties to the dispute shall facilitate the work of the arbitral tribunal and, in particular, using all means at their disposal, shall:

(a) Provide it with all relevant documents, facilities and information; and

(b) Enable it, where necessary, to call witnesses or experts and receive their evidence.

10. The parties and the arbitrators shall protect the confidentiality of any information they receive in confidence during the proceedings of the arbitral tribunal.

11. The arbitral tribunal may, at the request of one of the parties, recommend interim measures of protection.

12. If one of the parties to the dispute does not appear before the arbitral tribunal or fails to defend its case, the other party may request the tribunal to continue the proceedings and to render its final decision. Absence of a party or failure of a party to defend its case shall not constitute a bar to the proceedings. Before rendering its final decision, the arbitral tribunal must satisfy itself that the claim is well founded in fact and law.

13. The arbitral tribunal may hear and determine counter-claims arising directly out of the subject-matter of the dispute.

14. Unless the arbitral tribunal determines otherwise because of the particular circumstances of the case, the expenses of the tribunal, including the remuneration of its members, shall be borne by the parties to the dispute in equal shares. The tribunal shall keep a record of all its expenses, and shall furnish a final statement thereof to the parties.

15. Any Party to this Convention having an interest of a legal nature in the subject-matter of the dispute, and which may be affected by a decision in the case, may intervene in the proceedings with the consent of the tribunal.

16. The arbitral tribunal shall render its award within five months of the date on which it is established unless it finds it necessary to extend the time limit for a period which should not exceed five months.

17. The award of the arbitral tribunal shall be accompanied by a statement of reasons. It shall be final and binding upon all parties to the dispute. The award will be transmitted by the arbitral tribunal to the parties to the dispute and to the secretariat. The secretariat will forward the information received to all Parties to this Convention.

18. Any dispute which may arise between the parties concerning the interpretation or execution of the award may be submitted by either party to the arbitral tribunal which made the award or, if the latter cannot be seized thereof, to another tribunal constituted for this purpose in the same manner as the first.

Convention on the Protection and Use of Transboundary Watercourses and International Lakes, Helsinki, 1992

Done at Helsinki 17 March 1992

Not in force

Depositary: Secretary-General of the United Nations

Primary source citation: Copy of text provided by the U.S. Department of State

CONVENTION ON THE PROTECTION AND USE OF TRANSBOUNDARY WATERCOURSES AND INTERNATIONAL LAKES

PREAMBLE

The Parties to this Convention,

Mindful that the protection and use of transboundary watercourses and international lakes are important and urgent tasks, the effective accomplishment of which can only be ensured by enhanced cooperation,

Concerned over the existence and threats of adverse effects, in the short or long term, of changes in the conditions of transboundary watercourses and international lakes on the environment, economies and well-being of the member countries of the Economic Commission for Europe (ECE),

Emphasizing the need for strengthened national and international measures to prevent, control and reduce the release of hazardous substances into the aquatic environment and to abate eutrophication and acidification, as well as pollution of the marine environment, in particular coastal areas, from land-based sources,

Commending the efforts already undertaken by the ECE Governments to strengthen cooperation, on bilateral and multilateral levels, for the prevention, control and reduction of transboundary pollution, sustainable water management, conservation of water resources and environmental protection,

Recalling the pertinent provisions and principles of the Declaration of the Stockholm Conference on the Human Environment, the Final Act of the Conference on Security and Cooperation in Europe (CSCE), the Concluding Documents of the Madrid and Vienna Meetings of Representatives of the Participating States of the CSCE, and the Regional Strategy for Environmental Protection and Rational Use of Natural Resources in ECE Member Countries covering the Period up to the Year 2000 and Beyond,

Conscious of the role of the United Nations Economic Commission for Europe in promoting international cooperation for the prevention, control and reduction of transboundary water pollution and sustainable use of transboundary waters, and in this regard recalling the ECE Declaration of Policy on Prevention and Control of Water Pollution, including Transboundary Pollution; the ECE Declaration of Policy on the Rational Use of Water; the ECE Principles Regarding Cooperation in the Field of Transboundary Waters; the ECE Charter on Groundwater Management; and the Code of Conduct on Accidental Pollution of Transboundary Inland Waters,

Referring to decisions I (42) and I (44) adopted by the Economic Commission for Europe at its forty-second and forty-fourth sessions, respectively, and the outcome of the CSCE Meeting on the Protection of the Environment (Sofia, Bulgaria, 16 October - 3 November 1989),

Emphasizing that cooperation between member countries in regard to the protection and use of transboundary waters shall be implemented primarily through the elaboration of agreements between countries bordering the same waters, especially where no such agreements have yet been reached,

Have agreed as follows:

Article 1

DEFINITIONS

For the purposes of this Convention,

1. "Transboundary waters" means any surface or ground waters which mark, cross or are located on boundaries between two or more States; wherever transboundary waters flow directly into the sea, these transboundary waters end at a straight line across their respective mouths between points on the low-water line of their banks;

2. "Transboundary impact" means any significant adverse effect on the environment resulting from a change in the conditions of transboundary waters caused by a human activity, the physical origin of which is situated wholly or in part within an area under the jurisdiction of a Party, within an area under the jurisdiction of another Party. Such effects on the environment include effects on human health and safety, flora, fauna, soil, air, water, climate, landscape and historical monuments or other physical structures or the interaction among these factors; they also include effects on the cultural heritage or socio-economic conditions resulting from alterations to those factors;

3. "Party" means, unless the text otherwise indicates, a Contracting Party to this Convention;

4. "Riparian Parties" means the Parties bordering the same transboundary waters;

5. "Joint body" means any bilateral or multilateral commission or other appropriate institutional arrangements for cooperation between the Riparian Parties;

6. "Hazardous substances" means substances which are toxic, carcinogenic, mutagenic, teratogenic or bio-accumulative, especially when they are persistent;

7. "Best available technology" (the definition is contained in annex I to this Convention).

PART I

PROVISIONS RELATING TO ALL PARTIES

Article 2

GENERAL PROVISIONS

1. The Parties shall take all appropriate measures to prevent, control and reduce any transboundary impact.

2. The Parties shall, in particular, take all appropriate measures:

(a) To prevent, control and reduce pollution of waters causing or likely to cause transboundary impact;

(b) To ensure that transboundary waters are used with the aim of ecologically sound and rational water management, conservation of water resources and environmental protection;

(c) To ensure that transboundary waters are used in a reasonable and equitable way, taking into particular account their transboundary character, in the case of activities which cause or are likely to cause transboundary impact;

(d) To ensure conservation and, where necessary, restoration of ecosystems.

3. Measures for the prevention, control and reduction of water pollution shall be taken, where possible, at source.

4. These measures shall not directly or indirectly result in a transfer of pollution to other parts of the environment.

5. In taking the measures referred to in paragraphs 1 and 2 of this article, the Parties shall be guided by the following principles.

(a) The precautionary principle, by virtue of which action to avoid the potential transboundary impact of the release of hazardous substances shall not be postponed on the ground that scientific research has not fully proved a causal link between those substances, on the one hand, and the potential transboundary impact, on the other hand;

(b) The polluter-pays principle, by virtue of which costs of pollution prevention, control and reduction measures shall be borne by the polluter;

(c) Water resources shall be managed so that the needs of the present generation are met without compromising the ability of future generations to meet their own needs.

6. The Riparian Parties shall cooperate on the basis of equality and reciprocity, in particular through bilateral and multilateral agreements, in order to develop harmonized policies, programmes and strategies covering the relevant catchment areas, or parts thereof, aimed at the prevention, control and reduction of transboundary impact and aimed at the protection of the environment of transboundary waters or the environment influenced by such waters, including the marine environment.

7. The application of this Convention shall not lead to the deterioration of environmental conditions nor lead to increased transboundary impact.

8. The provisions of this Convention shall not affect the right of Parties individually or jointly to adopt and implement more stringent measures than those set down in this Convention.

Article 3

PREVENTION, CONTROL AND REDUCTION

1. To prevent, control and reduce transboundary impact, the Parties shall develop, adopt, implement and, as far as possible, render compatible relevant legal, administrative, economic, financial and technical measures, in order to ensure, inter alia, that:

(a) The emission of pollutants is prevented, controlled and reduced at source through the application of, inter alia, low- and non-waste technology;

(b) Transboundary waters are protected against pollution from point sources through the prior licensing of waste-water discharges by the competent national authorities, and that the authorized discharges are monitored and controlled;

(c) Limits for waste-water discharges stated in permits are based on the best available technology for discharges of hazardous substances;

(d) Stricter requirements, even leading to prohibition in individual cases, are imposed when the quality of the receiving water or the ecosystem so requires;

(e) At least biological treatment or equivalent processes are applied to municipal waste water, where necessary in a step-by-step approach;

(f) Appropriate measures are taken, such as the application of the best available technology, in order to reduce nutrient inputs from industrial and municipal sources;

(g) Appropriate measures and best environmental practices are developed and implemented for the reduction of inputs of nutrients and hazardous substances from diffuse sources, especially where the main sources are from agriculture (guidelines for developing best environmental practices are given in annex II to this Convention);

(h) Environmental impact assessment and other means of assessment are applied;

(i) Sustainable water-resources management, including the application of the ecosystems approach, is promoted;

(j) Contingency planning is developed;

(k) Additional specific measures are taken to prevent the pollution of groundwaters;

(l) The risk of accidental pollution is minimized.

2. To this end, each Party shall set emission limits for discharges from point sources into surface waters based on the best available technology, which are specifically applicable to individual industrial sectors or industries from which hazardous substances derive. The appropriate measures mentioned in paragraph 1 of this article to prevent, control and reduce the input of hazardous substances from point and diffuse sources into waters, may, inter alia, include total or partial prohibition of the production or use of such substances. Existing lists of such industrial sectors or industries and of such hazardous substances in international conventions or regulations, which are applicable in the area covered by this Convention, shall be taken into account.

3. In addition, each Party shall define, where appropriate, water-quality objectives and adopt water-quality criteria for the purpose of preventing, controlling and reducing transboundary impact. General guidance for developing such objectives and criteria is given in annex III to this Convention. When necessary, the Parties shall endeavour to update this annex.

Article 4

MONITORING

The Parties shall establish programmes for monitoring the conditions of transboundary waters.

Article 5

RESEARCH AND DEVELOPMENT

The Parties shall cooperate in the conduct of research into and development of effective techniques for the prevention, control and reduction of transboundary impact. To this effect, the Parties shall, on a bilateral and/or multilateral basis, taking into account research activities pursued in relevant international forums, endeavour to initiate or intensify specific research programmes, where necessary, aimed, inter alia, at:

(a) Methods for the assessment of the toxicity of hazardous substances and the noxiousness of pollutants;

(b) Improved knowledge on the occurrence, distribution and environmental effects of pollutants and the processes involved;

(c) The development and application of environmentally sound technologies, production and consumption patterns;

(d) The phasing out and/or substitution of substances likely to have transboundary impact;

(e) Environmentally sound methods of disposal of hazardous substances;

(f) Special methods for improving the conditions of transboundary waters;

(g) The development of environmentally sound water-construction works and water-regulation techniques;

(h) The physical and financial assessment of damage resulting from transboundary impact.

The results of these research programmes shall be exchanged among the Parties in accordance with article 6 of this Convention.

Article 6

EXCHANGE OF INFORMATION

The Parties shall provide for the widest exchange of information, as early as possible, on issues covered by the provisions of this Convention.

Article 7

RESPONSIBILITY AND LIABILITY

The Parties shall support appropriate international efforts to elaborate rules, criteria and procedures in the field of responsibility and liability.

Article 8

PROTECTION OF INFORMATION

The provisions of this Convention shall not affect the rights or the obligations of Parties in accordance with their national legal systems and applicable supranational regulations to protect information related to industrial and commercial secrecy, including intellectual property, or national security.

PART II

PROVISIONS RELATING TO RIPARIAN PARTIES

Article 9

BILATERAL AND MULTILATERAL COOPERATION

1. The Riparian Parties shall on the basis of equality and reciprocity enter into bilateral or multilateral agreements or other arrangements, where these do not yet exist, or adapt existing ones, where necessary to eliminate the contradictions with the basic principles of this Convention, in order to define their mutual relations and conduct regarding the prevention, control and reduction of transboundary impact. The Riparian Parties shall specify the catchment area, or part(s) thereof, subject to cooperation. These agreements or arrangements shall embrace relevant issues covered by this Convention, as well as any other issues on which the Riparian Parties may deem it necessary to cooperate.

2. The agreements or arrangements mentioned in paragraph 1 of this article shall provide for the establishment of joint bodies. The tasks of these joint bodies shall be, inter alia, and without prejudice to relevant existing agreements or arrangements, the following:

(a) To collect, compile and evaluate data in order to identify pollution sources likely to cause transboundary impact;

(b) To elaborate joint monitoring programmes concerning water quality and quantity;

(c) To draw up inventories and exchange information on the pollution sources mentioned in paragraph 2 (a) of this article;

(d) To elaborate emission limits for waste water and evaluate the effectiveness of control programmes;

(e) To elaborate joint water-quality objectives and criteria having regard to the provisions of article 3, paragraph 3 of this Convention, and to propose relevant measures for maintaining and, where necessary, improving the existing water quality;

(f) To develop concerted action programmes for the reduction of pollution loads from both point sources (e.g. municipal and industrial sources) and diffuse sources (particularly from agriculture);

(g) To establish warning and alarm procedures;

(h) To serve as a forum for the exchange of information on existing and planned uses of water and related installations that are likely to cause transboundary impact;

(i) To promote cooperation and exchange of information on the best available technology in accordance with the provisions of article 13 of this Convention, as well as to encourage cooperation in scientific research programmes;

(j) To participate in the implementation of environmental impact assessments relating to transboundary waters, in accordance with appropriate international regulations.

3. In cases where a coastal State, being Party to this Convention, is directly and significantly affected by transboundary impact, the Riparian Parties can, if they all so agree, invite that coastal State to be involved in an appropriate manner in the activities of multilateral joint bodies established by Parties riparian to such transboundary waters.

4. Joint bodies according to this Convention shall invite joint bodies, established by coastal States for the protection of the marine environment directly affected by transboundary impact, to cooperate in order to harmonize their work and to prevent, control and reduce the transboundary impact.

5. Where two or more joint bodies exist in the same catchment area, they shall endeavour to coordinate their activities in order to strengthen the prevention, control and reduction of transboundary impact within that catchment area.

Article 10

CONSULTATIONS

Consultations shall be held between the Riparian Parties on the basis of reciprocity, good faith and good-neighbourliness, at the request of any such Party. Such consultations shall aim at cooperation regarding the issues covered by the provisions of this Convention. Any such consultations shall be conducted through a joint body established under article 9 of this Convention, where one exists.

Article 11

JOINT MONITORING AND ASSESSMENT

1. In the framework of general cooperation mentioned in article 9 of this Convention, or specific arrangements, the Riparian Parties shall establish and implement joint programmes for monitoring the conditions of transboundary waters, including floods and ice drifts, as well as transboundary impact.

2. The Riparian Parties shall agree upon pollution parameters and pollutants whose discharges and concentration in transboundary waters shall be regularly monitored.

3. The Riparian Parties shall, at regular intervals, carry out joint or coordinated assessments of the conditions of transboundary waters and the effectiveness of measures taken for the prevention, control and reduction of transboundary impact. The results of these assessments shall be made available to the public in accordance with the provisions set out in article 16 of this Convention.

4. For these purposes, the Riparian Parties shall harmonize rules for the setting up and operation of monitoring programmes, measurement systems, devices, analytical techniques, data processing and evaluation procedures, and methods for the registration of pollutants discharged.

Article 12

COMMON RESEARCH AND DEVELOPMENT

In the framework of general cooperation mentioned in article 9 of this Convention, or specific arrangements, the Riparian Parties shall undertake specific research and development activities in support of achieving and maintaining the water-quality objectives and criteria which they have agreed to set and adopt.

Article 13

EXCHANGE OF INFORMATION BETWEEN RIPARIAN PARTIES

1. The Riparian Parties shall, within the framework of relevant agreements or other arrangements according to article 9 of this Convention, exchange reasonably available data, inter alia, on:

(a) Environmental conditions of transboundary waters;

(b) Experience gained in the application and operation of best available technology and results of research and development;

(c) Emission and monitoring data;

(d) Measures taken and planned to be taken to prevent, control and reduce transboundary impact;

(e) Permits or regulations for waste-water discharges issued by the competent authority or appropriate body.

2. In order to harmonize emission limits, the Riparian Parties shall undertake the exchange of information on their national regulations.

3. If a Riparian Party is requested by another Riparian Party to provide data or information that is not available, the former shall endeavour to comply with the request but may condition its compliance upon the payment, by the requesting Party, of reasonable charges for collecting and, where appropriate, processing such data or information.

4. For the purposes of the implementation of this Convention, the Riparian Parties shall facilitate the exchange of best available technology, particularly through the promotion of: the commercial exchange of available technology; direct industrial contacts and cooperation, including joint ventures; the exchange of information and experience; and the provision of technical assistance. The Riparian Parties shall also undertake joint training programmes and the organization of relevant seminars and meetings.

Article 14

WARNING AND ALARM SYSTEMS

The Riparian Parties shall without delay inform each other about any critical situation that may have transboundary impact. The Riparian Parties shall set up, where appropriate, and operate coordinated or joint communication, warning and alarm systems with the aim of obtaining and transmitting information. These systems shall operate on the basis of compatible data transmission and treatment procedures and facilities to be agreed upon by the Riparian Parties. The Riparian Parties shall inform each other about competent authorities or points of contact designated for this purpose.

Article 15

MUTUAL ASSISTANCE

1. If a critical situation should arise, the Riparian Parties shall provide mutual assistance upon request, following procedures to be established in accordance with paragraph 2 of this article.

2. The Riparian Parties shall elaborate and agree upon procedures for mutual assistance addressing, inter alia, the following issues:

(a) The direction, control, coordination and supervision of assistance;

(b) Local facilities and services to be rendered by the Party requesting assistance, including, where necessary, the facilitation of border-crossing formalities;

(c) Arrangements for holding harmless, indemnifying and/or compensating the assisting Party and/or its personnel, as well as for transit through territories of third Parties, where necessary;

(d) Methods of reimbursing assistance services.

Article 16

PUBLIC INFORMATION

1. The Riparian Parties shall ensure that information on the conditions of transboundary waters, measures taken or planned to be taken to prevent, control and reduce transboundary impact, and the effectiveness of those measures, is made available to the public. For this purpose, the Riparian Parties shall ensure that the following information is made available to the public:

(a) Water-quality objectives;

(b) Permits issued and the conditions required to be met;

(c) Results of water and effluent sampling carried out for the purposes of monitoring and assessment, as well as results of checking compliance with the water-quality objectives or the permit conditions.

2. The Riparian Parties shall ensure that this information shall be available to the public at all reasonable times for inspection free of charge, and shall provide members of the public with reasonable facilities for obtaining from the Riparian Parties, on payment of reasonable charges, copies of such information.

PART III

INSTITUTIONAL AND FINAL PROVISIONS

Article 17

MEETING OF PARTIES

1. The first meeting of the Parties shall be convened no later than one year after the date of the entry into force of this Convention. Thereafter, ordinary meetings shall be held every three years, or at shorter intervals as laid down in the rules of procedure. The Parties shall hold an extraordinary meeting if they so decide in the course of an ordinary meeting or at the written request of any Party, provided that, within six months of it being communicated to all Parties, the said request is supported by at least one third of the Parties.

2. At their meetings, the Parties shall keep under continuous review the implementation of this Convention, and, with this purpose in mind, shall:

(a) Review the policies for and methodological approaches to the protection and use of transboundary waters of the Parties with a view to further improving the protection and use of transboundary waters;

(b) Exchange information regarding experience gained in concluding and implementing bilateral and multilateral agreements or other arrangements regarding the protection and use of transboundary waters to which one or more of the Parties are party;

(c) Seek, where appropriate, the services of relevant ECE bodies as well as other competent international bodies and specific committees in all aspects pertinent to the achievement of the purposes of this Convention;

(d) At their first meeting, consider and by consensus adopt rules of procedure for their meetings;

(e) Consider and adopt proposals for amendments to this Convention;

(f) Consider and undertake any additional action that may be required for the achievement of the purposes of this Convention.

Article 18

RIGHT TO VOTE

1. Except as provided for in paragraph 2 of this article, each Party to this Convention shall have one vote.

2. Regional economic integration organizations, in matters within their competence, shall exercise their right to vote with a number of votes equal to the number of their member States which are Parties to this Convention. Such organizations shall not exercise their right to vote if their member States exercise theirs, and vice versa.

Article 19

SECRETARIAT

The Executive Secretary of the Economic Commission for Europe shall carry out the following secretariat functions:

(a) The convening and preparing of meetings of the Parties;

(b) The transmission to the Parties of reports and other information received in accordance with the provisions of this Convention;

(c) The performance of such other functions as may be determined by the Parties.

Article 20

ANNEXES

Annexes to this Convention shall constitute an integral part thereof.

Article 21

AMENDMENTS TO THE CONVENTION

1. Any Party may propose amendments to this Convention.

2. Proposals for amendments to this Convention shall be considered at a meeting of the Parties.

3. The text of any proposed amendment to this Convention shall be submitted in writing to the Executive Secretary of the Economic Commission for Europe, who shall communicate it to all Parties at least ninety days before the meeting at which it is proposed for adoption.

4. An amendment to the present Convention shall be adopted by consensus of the representatives of the Parties to this Convention present at a meeting of the Parties, and shall enter into force for the Parties to the Convention which have accepted it on the ninetieth day after the date on which two thirds of those Parties have deposited with the Depositary their instruments of acceptance of the amendment. The amendment shall enter into force for any other Party on the ninetieth day after the date on which that Party deposits its instrument of acceptance of the amendment.

Article 22

SETTLEMENT OF DISPUTES

1. If a dispute arises between two or more Parties about the interpretation or application of this Convention, they shall seek a solution by negotiation or by any other means of dispute settlement acceptable to the parties to the dispute.

2. When signing, ratifying, accepting, approving or acceding to this Convention, or at any time thereafter, a Party may declare in writing to the Depositary that, for a dispute not resolved in accordance with paragraph 1 of this article, it accepts one or both of the following means of dispute settlement as compulsory in relation to any Party accepting the same obligation:

(a) Submission of the dispute to the International Court of Justice;

(b) Arbitration in accordance with the procedure set out in annex IV.

3. If the parties to the dispute have accepted both means of dispute settlement referred to in paragraph 2 of this article, the dispute may be submitted only to the International Court of Justice, unless the parties agree otherwise.

Article 23

SIGNATURE

This Convention shall be open for signature at Helsinki from 17 to 18 March 1992 inclusive, and thereafter at United Nations Headquarters in New York until 18 September 1992, by States members of the Economic Commission for Europe as well as States having consultative status with the Economic Commission for Europe pursuant to paragraph 8 of Economic and Social Council resolution 36 (IV) of 28 March 1947, and by regional economic integration organizations constituted by sovereign States members of the Economic Commission for Europe to which their member States have transferred competence over matters governed by this Convention, including the competence to enter into treaties in respect of these matters.

Article 24

DEPOSITARY

The Secretary-General of the United Nations shall act as the Depositary of this Convention.

Article 25

RATIFICATION, ACCEPTANCE, APPROVAL AND ACCESSION

1. This Convention shall be subject to ratification, acceptance or approval by signatory States and regional economic integration organizations.

2. This Convention shall be open for accession by the States and organizations referred to in article 23.

3. Any organization referred to in article 23 which becomes a Party to this Convention without any of its member States being a Party shall be bound by all the obligations under this Convention. In the case of such organizations, one or more of whose member States is a Party to this Convention, the organization and its member States shall decide on their respective responsibilities for the performance of their obligations under this Convention. In such cases, the organization and the member States shall not be entitled to exercise rights under this Convention concurrently.

4. In their instruments of ratification, acceptance, approval or accession, the regional economic integration organizations referred to in article 23 shall declare the extent of their competence with respect to the matters governed by this Convention. These organizations shall also inform the Depositary of any substantial modification to the extent of their competence.

Article 26

ENTRY INTO FORCE

1. This Convention shall enter into force on the ninetieth day after the date of deposit of the sixteenth instrument of ratification, acceptance, approval or accession.

2. For the purposes of paragraph 1 of this article, any instrument deposited by a regional economic integration organization shall not be counted as additional to those deposited by States members of such an organization.

3. For each State or organization referred to in article 23 which ratifies, accepts or approves this Convention or accedes thereto after the deposit of the sixteenth instrument of ratification, acceptance, approval or accession, the Convention shall enter into force on the ninetieth day after the date of deposit by such State or organization of its instrument of ratification, acceptance, approval or accession.

Article 27

WITHDRAWAL

At any time after three years from the date on which this Convention has come into force with respect to a Party, that Party may withdraw from the Convention by giving written notification to the Depositary. Any such withdrawal shall take effect on the ninetieth day after the date of its receipt by the Depositary.

Article 28

AUTHENTIC TEXTS

The original of this Convention, of which the English, French and Russian texts are equally authentic, shall be deposited with the Secretary-General of the United Nations.

IN WITNESS WHEREOF the undersigned, being duly authorized thereto, have signed this Convention.

DONE at Helsinki, this seventeenth day of March one thousand nine hundred and ninety-two.

ANNEX I

DEFINITION OF THE TERM "BEST AVAILABLE TECHNOLOGY"

1. The term "best available technology" is taken to mean the latest stage of development of processes, facilities or methods of operation which indicate the practical suitability of a particular measure for limiting discharges, emissions and waste. In determining whether a set of processes, facilities and methods of operation constitute the best available technology in general or individual cases, special consideration is given to:

(a) Comparable processes, facilities or methods of operation which have recently been successfully tried out;

(b) Technological advances and changes in scientific knowledge and understanding;

(c) The economic feasibility of such technology;

(d) Time limits for installation in both new and existing plants;

(e) The nature and volume of the discharges and effluents concerned;

(f) Low- and non-waste technology.

2. It therefore follows that what is "best available technology" for a particular process will change with time in the light of technological advances, economic and social factors, as well as in the light of changes in scientific knowledge and understanding.

ANNEX II

GUIDELINES FOR DEVELOPING BEST ENVIRONMENTAL PRACTICES

1. In selecting for individual cases the most appropriate combination of measures which may constitute the best environmental practice, the following graduated range of measures should be considered:

(a) Provision of information and education to the public and to users about the environmental consequences of the choice of particular activities and products, their use and ultimate disposal;

(b) The development and application of codes of good environmental practice which cover all aspects of the product's life;

(c) Labels informing users of environmental risks related to a product, its use and ultimate disposal;

(d) Collection and disposal systems available to the public;

(e) Recycling, recovery and reuse;

(f) Application of economic instruments to activities, products or groups of products;

(g) A system of licensing, which involves a range of restrictions or a ban.

2. In determining what combination of measures constitute best environmental practices, in general or in individual cases, particular consideration should be given to:

(a) The environmental hazard of:

(i) The product;

(ii) The product's production;

(iii) The product's use;

(iv) The product's ultimate disposal;

(b) Substitution by less polluting processes or substances;

(c) Scale of use;

(d) Potential environmental benefit or penalty of substitute materials or activities;

(e) Advances and changes in scientific knowledge and understanding;

(f) Time limits for implementation;

(g) Social and economic implications.

3. It therefore follows that best environmental practices for a particular source will change with time in the light of technological advances, economic and social factors, as well as in the light of changes in scientific knowledge and understanding.

ANNEX III

GUIDELINES FOR DEVELOPING WATER-QUALITY OBJECTIVES AND CRITERIA

Water-quality objectives and criteria shall:

(a) Take into account the aim of maintaining and, where necessary, improving the existing water quality;

(b) Aim at the reduction of average pollution loads (in particular hazardous substances) to a certain degree within a certain period of time;

(c) Take into account specific water-quality requirements (raw water for drinking-water purposes, irrigation, etc.);

(d) Take into account specific requirements regarding sensitive and specially protected waters and their environment, e.g. lakes and groundwater resources;

(e) Be based on the application of ecological classification methods and chemical indices for the medium- and long-term review of water-quality maintenance and improvement;

(f) Take into account the degree to which objectives are reached and the additional protective measures, based on emission limits, which may be required in individual cases.

ANNEX IV

ARBITRATION

1. In the event of a dispute being submitted for arbitration pursuant to article 22, paragraph 2 of this Convention, a party or parties shall notify the secretariat of the subject-matter of arbitration and indicate, in particular, the articles of this Convention whose interpretation or application is at issue. The secretariat shall forward the information received to all Parties to this Convention.

2. The arbitral tribunal shall consist of three members. Both the claimant party or parties and the other party or parties to the dispute shall appoint an arbitrator, and the two arbitrators so appointed shall designate by common agreement the third arbitrator, who shall be the president of the arbitral tribunal. The latter shall not be a national of one of the parties to the dispute, nor have his or her usual place of residence in the territory of one of these parties, nor be employed by any of them, nor have dealt with the case in any other capacity.

3. If the president of the arbitral tribunal has not been designated within two months of the appointment of the second arbitrator, the Executive Secretary of the Economic Commission for Europe shall, at the request of either party to the dispute, designate the president within a further two-month period.

4. If one of the parties to the dispute does not appoint an arbitrator within two months of the receipt of the request, the other party may so inform the Executive Secretary of the Economic Commission for Europe, who shall designate the president of the arbitral tribunal within a further two-month period. Upon designation, the president of the arbitral tribunal shall request the party which has not appointed an arbitrator to do so within two months. If it fails to do so within that period, the president shall so inform the Executive Secretary of the Economic Commission for Europe, who shall make this appointment within a further two-month period.

5. The arbitral tribunal shall render its decision in accordance with international law and the provisions of this Convention.

6. Any arbitral tribunal constituted under the provisions set out in this annex shall draw up its own rules of procedure.

7. The decisions of the arbitral tribunal, both on procedure and on substance, shall be taken by majority vote of its members.

8. The tribunal may take all appropriate measures to establish the facts.

9. The parties to the dispute shall facilitate the work of the arbitral tribunal and, in particular, using all means at their disposal, shall:

(a) Provide it with all relevant documents, facilities and information;

(b) Enable it, where necessary, to call witnesses or experts and receive their evidence.

10. The parties and the arbitrators shall protect the confidentiality of any information they receive in confidence during the proceedings of the arbitral tribunal.

11. The arbitral tribunal may, at the request of one of the parties, recommend interim measures of protection.

12. If one of the parties to the dispute does not appear before the arbitral tribunal or fails to defend its case, the other party may request the tribunal to continue the proceedings and to render its final decision. Absence of a party or failure of a party to defend its case shall not constitute a bar to the proceedings.

13. The arbitral tribunal may hear and determine counter-claims arising directly out of the subject-matter of the dispute.

14. Unless the arbitral tribunal determines otherwise because of the particular circumstances of the case, the expenses of the tribunal, including the remuneration of its members, shall be borne by the parties to the dispute in equal shares. The tribunal shall keep a record of all its expenses, and shall furnish a final statement thereof to the parties.

15. Any Party to this Convention which has an interest of a legal nature in the subject-matter of the dispute, and which may be affected by a decision in the case, may intervene in the proceedings with the consent of the tribunal.

16. The arbitral tribunal shall render its award within five months of the date on which it is established, unless it finds it necessary to extend the time limit for a period which should not exceed five months.

17. The award of the arbitral tribunal shall be accompanied by a statement of reasons. It shall be final and binding upon all parties to the dispute. The award will be transmitted by the arbitral tribunal to the parties to the dispute and to the secretariat. The secretariat will forward the information received to all Parties to this Convention.

18. Any dispute which may arise between the parties concerning the interpretation or execution of the award may be submitted by either party to the arbitral tribunal which made the award or, if the latter cannot be seized thereof, to another tribunal constituted for this purpose in the same manner as the first.

Convention on the Transboundary Effects of Industrial Accidents, Helsinki, 1992

Done at Helsinki 17 March 1992

Not in force

Depositary: Secretary-General of the United Nations

Primary source citation: Copy of text provided by the U.S. Department of State

CONVENTION ON THE TRANSBOUNDARY EFFECTS OF INDUSTRIAL ACCIDENTS

PREAMBLE

The Parties to this Convention,

Mindful of the special importance, in the interest of present and future generations, of protecting human beings and the environment against the effects of industrial accidents,

Recognizing the importance and urgency of preventing serious adverse effects of industrial accidents on human beings and the environment, and of promoting all measures that stimulate the rational, economic and efficient use of preventive, preparedness and response measures to enable environmentally sound and sustainable economic development,

Taking into account the fact that the effects of industrial accidents may make themselves felt across borders, and require cooperation among States,

Affirming the need to promote active international cooperation among the States concerned before, during and after an accident, to enhance appropriate policies and to reinforce and coordinate action at all appropriate levels for promoting the prevention of, preparedness for and response to the transboundary effects of industrial accidents,

Noting the importance and usefulness of bilateral and multilateral arrangements for the prevention of, preparedness for and response to the effects of industrial accidents,

Conscious of the role played in this respect by the United Nations Economic Commission for Europe (ECE) and recalling, inter alia, the ECE Code of Conduct on Accidental Pollution of Transboundary Inland Waters and the Convention on Environmental Impact Assessment in a Transboundary Context,

Having regard to the relevant provisions of the Final Act of the Conference on Security and Cooperation in Europe (CSCE), the Concluding Document of the Vienna Meeting of Representatives of the Participating States of the CSCE, and the outcome of the Sofia Meeting on the Protection of the Environment of the CSCE, as well as to

pertinent activities and mechanisms in the United Nations Environment Programme (UNEP), in particular the APELL programme, in the International Labour Organisation (ILO), in particular the Code of Practice on the Prevention of Major Industrial Accidents, and in other relevant international organizations,

Considering the pertinent provisions of the Declaration of the United Nations Conference on the Human Environment, and in particular principle 21, according to which States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction,

Taking account of the polluter-pays principle as a general principle of international environmental law,

Underlining the principles of international law and custom, in particular the principles of good-neighbourliness, reciprocity, non-discrimination and good faith,

Have agreed as follows:

Article 1

DEFINITIONS

For the purposes of this Convention,

(a) "Industrial accident" means an event resulting from an uncontrolled development in the course of any activity involving hazardous substances either:

(i) In an installation, for example during manufacture, use, storage, handling, or disposal; or

(ii) During transportation in so far as it is covered by paragraph 2(d) of Article 2;

(b) "Hazardous activity" means any activity in which one or more hazardous substances are present or may be present in quantities at or in excess of the threshold quantities listed in Annex I hereto, and which is capable of causing transboundary effects;

(c) "Effects" means any direct or indirect, immediate or delayed adverse consequences caused by an industrial accident on, inter alia:

(i) Human beings, flora and fauna;

(ii) Soil, water, air and landscape;

(iii) The interaction between the factors in (i) and (ii);

(iv) Material assets and cultural heritage, including historical monuments;

(d) "Transboundary effects" means serious effects within the jurisdiction of a Party as a result of an industrial accident occurring within the jurisdiction of another Party;

(e) "Operator" means any natural or legal person, including public authorities, in charge of an activity, e.g. supervising, planning to carry out or carrying out an activity;

(f) "Party" means, unless the text otherwise indicates, a Contracting Party to this Convention;

(g) "Party of origin" means any Party or Parties under whose jurisdiction an industrial accident occurs or is capable of occurring;

(h) "Affected Party" means any Party or parties affected or capable of being affected by transboundary effects of an industrial accident;

(i) "Parties concerned" means any Party of origin and any affected Party;

(j) "The public" means one or more natural or legal persons.

Article 2

SCOPE

1. This Convention shall apply to the prevention of, preparedness for and response to industrial accidents capable of causing transboundary effects, including the effects of such accidents caused by natural disasters, and to international cooperation concerning mutual assistance, research and development, exchange of information and exchange of technology in the area of prevention of, preparedness for and response to industrial accidents.

2. This Convention shall not apply to:

(a) Nuclear accidents or radiological emergencies;

(b) Accidents at military installations;

(c) Dam failures, with the exception of the effects of industrial accidents caused by such failures;

(d) Land-based transport accidents with the exception of:

(i) Emergency response to such accidents;

(ii) Transportation on the site of the hazardous activity;

(e) Accidental release of genetically modified organisms;

(f) Accidents caused by activities in the marine environment, including seabed exploration or exploitation;

(g) Spills of oil or other harmful substances at sea.

Article 3

GENERAL PROVISIONS

1. The Parties shall, taking into account efforts already made at national and international levels, take appropriate measures and cooperate within the framework of this Convention, to protect human beings and the environment against industrial accidents by preventing such accidents as far as possible, by reducing their frequency and severity and by mitigating their effects. To this end, preventive, preparedness and response measures, including restoration measures, shall be applied.

2. The Parties shall, by means of exchange of information, consultation and other cooperative measures and without undue delay, develop and implement policies and strategies for reducing the risks of industrial accidents and improving preventive, preparedness and response measures, including restoration measures, taking into account, in order to avoid unnecessary duplication, efforts already made at national and international levels.

3. The Parties shall ensure that the operator is obliged to take all measures necessary for the safe performance of the hazardous activity and for the prevention of industrial accidents.

4. To implement the provisions of this Convention, the Parties shall take appropriate legislative, regulatory, administrative and financial measures for the prevention of, preparedness for and response to industrial accidents.

5. The provisions of this Convention shall not prejudice any obligations of the Parties under international law with regard to industrial accidents and hazardous activities.

Article 4

IDENTIFICATION, CONSULTATION AND ADVICE

1. For the purpose of undertaking preventive measures and setting up preparedness measures, the Party of origin shall take measures, as appropriate, to identify hazardous activities within its jurisdiction and to ensure that affected Parties are notified of any such proposed or existing activity.

2. Parties concerned shall, at the initiative of any such Party, enter into discussions on the identification of those hazardous activities that are, reasonably, capable of causing transboundary effects. If the Parties concerned do not agree on whether an activity is such a hazardous activity, any such Party may, unless the Parties concerned agree on another method of resolving the question, submit that question to an inquiry commission in accordance with the provisions of Annex II hereto for advice,

3. The Parties shall, with respect to proposed or existing hazardous activities, apply the procedures set out in Annex III hereto.

4. When a hazardous activity is subject to an environmental impact assessment in accordance with the Convention on Environmental Impact Assessment in a Transboundary Context and that assessment includes an evaluation of the transboundary effects of industrial accidents from the hazardous activity which is performed in conformity with the terms of this Convention, the final decision taken for the purposes of the Convention on Environmental Impact Assessment in a Transboundary Context shall fulfil the relevant requirements of this Convention.

Article 5

VOLUNTARY EXTENSION

Parties concerned should, at the initiative of any of them, enter into discussions on whether to treat an activity not covered by Annex I as a hazardous activity. Upon mutual agreement, they may use an advisory mechanism of their choice, or an inquiry commission in accordance with Annex II, to advise them. Where the Parties concerned so agree, this Convention, or any part thereof, shall apply to the activity in question as if it were a hazardous activity.

Article 6

PREVENTION

1. The Parties shall take appropriate measures for the prevention of industrial accidents, including measures to induce action by operators to reduce the risk of industrial accidents. Such measures may include, but are not limited to those referred to in Annex IV hereto.

2. With regard to any hazardous activity, the Party of origin shall require the operator to demonstrate the safe performance of the hazardous activity by the provision of information such as basic details of the process, including but not limited to, analysis and evaluation as detailed in Annex V hereto.

Article 7

DECISION-MAKING ON SITING

Within the framework of its legal system, the Party of origin shall, with the objective of minimizing the risk to the population and the environment of all affected Parties, seek the establishment of policies on the siting of new hazardous activities and on significant modifications to existing hazardous activities. Within the framework of their legal systems, the affected Parties shall seek the establishment of policies on significant developments in areas which could be affected by transboundary effects of an industrial accident arising out of a hazardous activity so as to minimize the risks involved. In elaborating and establishing these policies, the Parties should consider the matters set out in Annex V, paragraph 2, subparagraphs (1) to (8), and Annex VI hereto.

Article 8

EMERGENCY PREPAREDNESS

1. The Parties shall take appropriate measures to establish and maintain adequate emergency preparedness to respond to industrial accidents. The Parties shall ensure that preparedness measures are taken to mitigate transboundary effects of such accidents, on-site duties being undertaken by operators. These measures may include, but are not limited to those referred to in Annex VII hereto. In particular, the Parties concerned shall inform each other of their contingency plans.

2. The Party of origin shall ensure for hazardous activities the preparation and implementation of on-site contingency plans, including suitable measures for response and other measures to prevent and minimize transboundary effects. The Party of origin shall provide to the other Parties concerned the elements it has for the elaboration of contingency plans.

3. Each Party shall ensure for hazardous activities the preparation and implementation of off-site contingency plans covering measures to be taken within its territory to prevent and minimize transboundary effects. In preparing these plans, account shall be taken of the conclusions of analysis and evaluation, in particular the matters set out in Annex V, paragraph 2, subparagraphs (1) to (5). Parties concerned shall endeavour to make such plans compatible. Where appropriate, joint off-site contingency plans shall be drawn up in order to facilitate the adoption of adequate response measures.

4. Contingency plans should be reviewed regularly, or when circumstances so require, taking into account the experience gained in dealing with actual emergencies.

Article 9

INFORMATION TO, AND PARTICIPATION OF THE PUBLIC

1. The Parties shall ensure that adequate information is given to the public in the areas capable of being affected by an industrial accident arising out of a hazardous activity. This information shall be transmitted through such channels as the Parties deem appropriate, shall include the elements contained in Annex VIII hereto and should take into account matters set out in Annex V, paragraph 2, subparagraphs (1) to (4) and (9).

2. The Party of origin shall, in accordance with the provisions of this Convention and whenever possible and appropriate, give the public in the areas capable of being affected an opportunity to participate in relevant procedures with the aim of making known its views and concerns on prevention and preparedness measures, and shall ensure that the opportunity given to the public of the affected Party is equivalent to that given to the public of the Party of origin.

3. The Parties shall, in accordance with their legal systems and, if desired, on a reciprocal basis provide natural or legal persons who are being or are capable of being adversely affected by the transboundary effects of an industrial

accident in the territory of a Party, with access to, and treatment in the relevant administrative and judicial proceedings, including the possibilities of starting a legal action and appealing a decision affecting their rights, equivalent to those available to persons within their own jurisdiction.

Article 10

INDUSTRIAL ACCIDENT NOTIFICATION SYSTEMS

1. The Parties shall, with the aim of obtaining and transmitting industrial accident notifications containing information needed to counteract transboundary effects, provide for the establishment and operation of compatible and efficient industrial accident notification systems at appropriate levels.

2. In the event of an industrial accident, or imminent threat thereof, which causes or is capable of causing transboundary effects, the Party of origin shall ensure that affected Parties are, without delay, notified at appropriate levels through the industrial accident notification systems. Such notification shall include the elements contained in Annex IX hereto.

3. The Parties concerned shall ensure that, in the event of an industrial accident or imminent threat thereof, the contingency plans prepared in accordance with Article 8 are activated as soon as possible and to the extent appropriate to the circumstances.

Article 11

RESPONSE

1. The Parties shall ensure that, in the event of an industrial accident, or imminent threat thereof, adequate response measures are taken, as soon as possible and using the most efficient practices, to contain and minimize effects.

2. In the event of an industrial accident, or imminent threat thereof, which causes or is capable of causing transboundary effects, the Parties concerned shall ensure that the effects are assessed - where appropriate, jointly for the purpose of taking adequate response measures. The Parties concerned shall endeavour to coordinate their response measures.

Article 12

MUTUAL ASSISTANCE

1. If a Party needs assistance in the event of an industrial accident, it may ask for assistance from other Parties, indicating the scope and type of assistance required. A Party to whom a request for assistance is directed shall promptly decide and inform the requesting Party whether it is in a position to render the assistance required and indicate the scope and terms of the assistance that might be rendered.

2. The Parties concerned shall cooperate to facilitate the prompt provision of assistance agreed to under paragraph 1 of this Article, including, where appropriate, action to minimize the consequences and effects of the industrial accident, and to provide general assistance. Where Parties do not have bilateral or multilateral agreements which cover their arrangements for providing mutual assistance, the assistance shall be rendered in accordance with Annex X hereto, unless the Parties agree otherwise.

Article 13

RESPONSIBILITY AND LIABILITY

The Parties shall support appropriate international efforts to elaborate rules, criteria and procedures in the field of responsibility and liability.

Article 14

RESEARCH AND DEVELOPMENT

The Parties shall, as appropriate, initiate and cooperate in the conduct of research into, and in the development of methods and technologies for the prevention of, preparedness for and response to industrial accidents. For these purposes, the Parties shall encourage and actively promote scientific and technological cooperation, including research into less hazardous processes aimed at limiting accident hazards and preventing and limiting the consequences of industrial accidents.

Article 15

EXCHANGE OF INFORMATION

The Parties shall, at the multilateral or bilateral level, exchange reasonably obtainable information, including the elements contained in Annex XI hereto.

Article 16

EXCHANGE OF TECHNOLOGY

1. The Parties shall, consistent with their laws, regulations and practices, facilitate the exchange of technology for the prevention of, preparedness for and response to the effects of industrial accidents, particularly through the promotion of:

(a) Exchange of available technology on various financial bases;

(b) Direct industrial contacts and cooperation;

(c) Exchange of information and experience;

(d) Provision of technical assistance.

2. In promoting the activities specified in paragraph 1, subparagraphs (a) to (d) of this Article, the Parties shall create favourable conditions by facilitating contacts and cooperation among appropriate organizations and individuals in both the private and the public sectors that are capable of providing technology, design and engineering services, equipment or finance.

Article 17

COMPETENT AUTHORITIES AND POINTS OF CONTACT

1. Each Party shall designate or establish one or more competent authorities for the purposes of this Convention.

2. Without prejudice to other arrangements at the bilateral or multilateral level, each Party shall designate or establish one point of contact for the purpose of industrial accident notifications pursuant to Article 10, and one point of contact for the purpose of mutual assistance pursuant to Article 12. These points of contact should preferably be the same.

3. Each Party shall, within three months of the date of entry into force of this Convention for that Party, inform the other Parties, through the secretariat referred to in Article 20, which body or bodies it has designated as its point(s) of contact and as its competent authority or authorities.

4. Each Party shall, within one month of the date of decision, inform the other Parties, through the secretariat, of any changes regarding the designation(s) it has made under paragraph 3 of this Article.

5. Each Party shall keep its point of contact and industrial accident notification systems pursuant to Article 10 operational at all times.

6. Each Party shall keep its point of contact and the authorities responsible for making and receiving requests for, and accepting offers of assistance pursuant to Article 12 operational at all times.

Article 18

CONFERENCE OF THE PARTIES

1. The representatives of the Parties shall constitute the Conference of the Parties of this Convention and hold their meetings on a regular basis. The first meeting of the Conference of the Parties shall be convened not later than one year after the date of the entry into force of this Convention. Thereafter, a meeting of the Conference of the Parties shall be held at least once a year or at the written request of any Party, provided that, within six months of the request being communicated to them by the secretariat, it is supported by at least one third of the Parties.

2. The Conference of the Parties shall:

(a) Review the implementation of this Convention;

(b) Carry out advisory functions aimed at strengthening the ability of Parties to prevent, prepare for and respond to the transboundary effects of industrial accidents, and at facilitating the provision of technical assistance and advice at the request of Parties faced with industrial accidents;

(c) Establish, as appropriate, working groups and other appropriate mechanisms to consider matters related to the implementation and development of this Convention and, to this end, to prepare appropriate studies and other documentation and submit recommendations for consideration by the Conference of the Parties;

(d) Fulfill such other functions as may be appropriate under the provisions of this Convention;

(e) At its first meeting, consider and, by consensus, adopt rules of procedure for its meetings.

3. The Conference of the Parties, in discharging its functions, shall, when it deems appropriate, also cooperate with other relevant international organizations.

4. The Conference of the Parties shall, at its first meeting, establish a programme of work, in particular with regard to the items contained in Annex XII hereto. The Conference of the Parties shall also decide on the method of work, including the use of national centres and cooperation with relevant international organizations and the

establishment of a system with a view to facilitating the implementation of this Convention, in particular for mutual assistance in the event of an industrial accident, and building upon pertinent existing activities within relevant international organizations. As part of the programme of work, the Conference of the Parties shall review existing national, regional and international centres, and other bodies and programmes aimed at coordinating information and efforts in the prevention of, preparedness for and response to industrial accidents, with a view to determining what additional international institutions or centres may be needed to carry out the tasks listed in Annex XII.

5. The Conference of the Parties shall, at its first meeting, commence consideration of procedures to create more favourable conditions for the exchange of technology for the prevention of, preparedness for and response to the effects of industrial accidents.

6. The Conference of the Parties shall adopt guidelines and criteria to facilitate the identification of hazardous activities for the purposes of this Convention.

Article 19

RIGHT TO VOTE

1. Except as provided for in paragraph 2 of this Article, each Party to this Convention shall have one vote.

2. Regional economic integration organizations as defined in Article 27 shall, in matters within their competence, exercise their right to vote with a number of votes equal to the number of their member States which are Parties to this Convention. Such organizations shall not exercise their right to vote if their member States exercise theirs, and vice versa.

Article 20

SECRETARIAT

The Executive Secretary of the Economic Commission for Europe shall carry out the following secretariat functions:

(a) Convene and prepare meetings of the Parties;

(b) Transmit to the Parties reports and other information received in accordance with the provisions of this Convention;

(c) Such other functions as may be determined by the Parties.

Article 21

SETTLEMENT OF DISPUTES

1. If a dispute arises between two or more Parties about the interpretation or application of this Convention, they shall seek a solution by negotiation or by any other method of dispute settlement acceptable to the parties to the dispute.

2. When signing, ratifying, accepting, approving or acceding to this Convention, or at any time thereafter, a Party may declare in writing to the Depositary that, for a dispute not resolved in accordance with paragraph 1 of this Article, it accepts one or both of the following means of dispute settlement as compulsory in relation to any Party accepting the same obligation:

(a) Submission of the dispute to the International Court of Justice;

(b) Arbitration in accordance with the procedure set out in Annex XIII hereto.

3. If the parties to the dispute have accepted both means of dispute settlement referred to in paragraph 2 of this Article, the dispute may be submitted only to the International Court of Justice, unless the parties to the dispute agree otherwise.

Article 22

LIMITATIONS ON THE SUPPLY OF INFORMATION

1. The provisions of this Convention shall not affect the rights or the obligations of Parties in accordance with their national laws, regulations, administrative provisions or accepted legal practices and applicable international regulations to protect information related to personal data, industrial and commercial secrecy, including intellectual property, or national security.

2. If a Party nevertheless decides to supply such protected information to another Party, the Party receiving such protected information shall respect the confidentiality of the information received and the conditions under which it is supplied, and shall only use that information for the purposes for which it was supplied.

Article 23

IMPLEMENTATION

The Parties shall report periodically on the implementation of this Convention.

Article 24

BILATERAL AND MULTILATERAL AGREEMENTS

1. The Parties may, in order to implement their obligations under this Convention, continue existing or enter into new bilateral or multilateral agreements or other arrangements.

2. The provisions of this Convention shall not affect the right of Parties to take, by bilateral or multilateral agreement where appropriate, more stringent measures than those required by this Convention.

Article 25

STATUS OF ANNEXES

The Annexes to this Convention form an integral part of the Convention.

Article 26

AMENDMENTS TO THE CONVENTION

1. Any Party may propose amendments to this Convention.

2. The text of any proposed amendment to this Convention shall be submitted in writing to the Executive Secretary of the Economic Commission for Europe, who shall circulate it to all Parties. The Conference of the Parties shall discuss proposed amendments at its next annual meeting, provided that such proposals have been circulated to the Parties by the Executive Secretary of the Economic Commission for Europe at least ninety days in advance.

3. For amendments to this Convention - other than those to Annex I, for which the procedure is described in paragraph 4 of this Article:

(a) Amendments shall be adopted by consensus of the Parties present at the meeting and shall be submitted by the Depositary to all Parties for ratification, acceptance or approval;

(b) Instruments of ratification, acceptance or approval of amendments shall be deposited with the Depositary. Amendments adopted in accordance with this Article shall enter into force for Parties that have accepted them on the ninetieth day following the day of receipt by the Depositary of the sixteenth instrument of ratification, acceptance or approval;

(c) Thereafter, amendments shall enter into force for any other Party on the ninetieth day after that Party deposits its instruments of ratification, acceptance or approval of the amendments.

4. For amendments to Annex I:

(a) The Parties shall make every effort to reach agreement by consensus. If all efforts at consensus have been exhausted and no agreement reached, the amendments shall, as a last resort, be adopted by a nine-tenths majority vote of the Parties present and voting at the meeting. If adopted by the Conference of the Parties, the amendments shall be communicated to the Parties and recommended for approval;

(b) On the expiry of twelve months from the date of their communication by the Executive Secretary of the Economic Commission for Europe, the amendments to Annex I shall become effective for those Parties to this Convention which have not submitted a notification in accordance with the provisions of paragraph 4(c) of this Article, provided that at least sixteen Parties have not submitted such a notification;

(c) Any Party that is unable to approve an amendment to Annex I of this Convention shall so notify the Executive Secretary of the Economic Commission for Europe in writing within twelve months from the date of the communication of the adoption. The Executive Secretary shall without delay notify all Parties of any such notification received. A Party may at any time substitute an acceptance for its previous notification and the amendment to Annex I shall thereupon enter into force for that Party.

(d) For the purpose of this paragraph "Parties present and voting" means Parties present and casting an affirmative or negative vote.

Article 27

SIGNATURE

This Convention shall be open for signature at Helsinki from 17 to 18 March 1992 inclusive, and thereafter at United Nations Headquarters in New York until 18 September 1992, by States members of the Economic Commission for Europe, as well as States having consultative status with the Economic Commission for Europe pursuant to paragraph 8 of Economic and Social Council resolution 36 (IV) of 28 March 1947, and by regional economic integration organizations constituted by sovereign States members of the Economic Commission for Europe to which their member States have transferred competence in respect of matters governed by this Convention, including the competence to enter into treaties in respect of these matters.

Article 28

DEPOSITARY

The Secretary-General of the United Nations shall act as the Depositary of this Convention.

Article 29

RATIFICATION, ACCEPTANCE, APPROVAL AND ACCESSION

1. This Convention shall be subject to ratification, acceptance or approval by the signatory States and regional economic integration organizations referred to in Article 27.

2. This Convention shall be open for accession by the States and organizations referred to in Article 27.

3. Any organization referred to in Article 27 which becomes Party to this Convention without any of its member States being a Party shall be bound by all the obligations under this Convention. In the case of such organizations, one or more of whose member States is a Party to this Convention, the organization and its member States shall decide on their respective responsibilities for the performance of their obligations under this Convention. In such cases, the organization and the member States shall not be entitled to exercise rights under this Convention concurrently.

4. In their instruments of ratification, acceptance, approval or accession, the regional economic integration organizations referred to in Article 27 shall declare the extent of their competence with respect to the matters governed by this Convention. These organizations shall also inform the Depositary of any substantial modification to the extent of their competence.

Article 30

ENTRY INTO FORCE

1. This Convention shall enter into force on the ninetieth day after the date of deposit of the sixteenth instrument of ratification, acceptance, approval or accession.

2. For the purposes of paragraph 1 of this Article, any instrument deposited by an organization referred to in Article 27 shall not be counted as additional to those deposited by States members of such an organization.

3. For each State or organization referred to in Article 27 which ratifies, accepts or approves this Convention or accedes thereto after the deposit of the sixteenth instrument of ratification, acceptance, approval or accession, this Convention shall enter into force on the ninetieth day after the date of deposit by such State or organization of its instrument of ratification, acceptance, approval or accession.

Article 31

WITHDRAWAL

1. At any time after three years from the date on which this Convention has come into force with respect to a Party, that Party may withdraw from this Convention by giving written notification to the Depositary. Any such withdrawal shall take effect on the ninetieth day after the date of the receipt of the notification by the Depositary.

2. Any such withdrawal shall not affect the application of Article 4 to an activity in respect of which a notification has been made pursuant to Article 4, paragraph 1, or a request for discussions has been made pursuant to Article 4, paragraph 2.

Article 32

AUTHENTIC TEXTS

The original of this Convention, of which the English, French and Russian texts are equally authentic, shall be deposited with the Secretary-General of the United Nations.

IN WITNESS WHEREOF the undersigned, being duly authorized thereto, have signed this Convention.

DONE at Helsinki, this seventeenth day of March one thousand nine hundred and ninety-two.

ANNEX I

HAZARDOUS SUBSTANCES FOR THE PURPOSES OF DEFINING HAZARDOUS ACTIVITIES

The quantities set out below relate to each activity or group of activities. Where a range of quantities is given in Part I, the threshold quantities are the maximum quantities given in each range. Five years after the entry into force of this Convention, the lowest quantity given in each range shall become the threshold quantity, unless amended.

Where a substance or preparation named in Part II also falls within a category in Part I, the threshold quantity set out in Part II shall be used.

For the identification of hazardous activities, Parties shall take into consideration the foreseeable possibility of aggravation of the hazards involved and the quantities of the hazardous substances and their proximity, whether under the charge of one or more operators.

PART I. Categories of substances and preparations not specifically named in Part II

	Category	Threshold Quantity (Tonnes)
1.	Flammable gases 1[a)] including LPG	200
2.	Highly flammable liquids 1[b)]	50,000
3.	Very toxic 1[c)]	20
4.	Toxic 1[d)]	500–200
5.	Oxidizing 1[e)]	500–200
6.	Explosive 1[f)]	200–50
7.	Flammable liquids 1[g)] (handled under special conditions of pressure and temperature)	200
8.	Dangerous for the environment 1[h)]	200

PART II. Named substances

	Substance	Threshold Quantity (Tonnes)
1.	Ammonia	500
2 a	Ammonium nitrate [2/]	2,500
b	Ammonium nitrate in the form of fertilizers [3/]	10,000
3.	Acrylonitrile	200
4.	Chlorine	25
5.	Ethylene oxide	50
6.	Hydrogen cyanide	20

	Substance	Threshold Quantity (Tonnes)
7.	Hydrogen fluoride	50
8.	Hydrogen sulphide	50
9.	Sulphur dioxide	250
10.	Sulphur trioxide	75
11.	Lead alkyls	50
12.	Phosgene	0.75
13.	Methyl isocyanate	0.15

NOTES

1. Indicative criteria. In the absence of other appropriate criteria, Parties may use the following criteria when classifying substances or preparations for the purposes of Part I of this Annex.

(a) FLAMMABLE GASES: substances which in the gaseous state at normal pressure and mixed with air become flammable and the boiling point of which at normal pressure is 20°C or below;

(b) HIGHLY FLAMMABLE LIQUIDS: substances which have a flash point lower than 21°C and the boiling point of which at normal pressure is above 20°C;

(c) VERY TOXIC: substances with properties corresponding to those in table 1 or table 2 below, and which, owing to their physical and chemical properties, are capable of creating industrial accident hazards.

TABLE 1

LD_{50}(oral)(1) mg/kg body weight	LD_{50}(dermal)(2) mg/kg body weight	LC_{50} (3) mg/l (inhalation)
$LD_{50} \leq 25$	$LD_{50} \leq 50$	$LC_{50} \leq 0.5$

(1) LD_{50} oral in rats
(2) LD_{50} dermal in rats or rabbits
(3) LC_{50} by inhalation (four hours) in rats

TABLE 2

Discriminating dose mg/kg body weight	< 5

where the acute oral toxicity in animals of the substance has been determined using the fixed-dose procedure.

(d) TOXIC: substances with properties corresponding to those in table 3 or 4 and having physical and chemical properties capable of creating industrial accident hazards.

TABLE 3

LD_{50}(oral)(1) mg/kg body weight	LD_{50}(dermal)(2) mg/kg body weight	LC_{50} (3) mg/l(inhalation)
$25 < LD_{50} \leq 200$	$50 < LD_{50} \leq 400$	$0.5 < LC_{50} \leq 2$

(1) LD_{50} oral in rats
(2) LD_{50} dermal in rats or rabbits
(3) LC_{50} by inhalation (four hours) in rats

TABLE 4

Discriminating dose mg/kg body weight	= 5

where the acute oral toxicity in animals of the substance has been determined using the fixed-dose procedure.

(e) OXIDIZING: substances which give rise to highly exothermic reaction when in contact with other substances, particularly flammable substances.

(f) EXPLOSIVE: substances which may explode under the effect of flame or which are more sensitive to shocks or friction than dinitrobenzene.

(g) FLAMMABLE LIQUIDS: substances which have a flash point lower than 55°C and which remain liquid under pressure, where particular processing conditions, such as high pressure and high temperature, may create industrial accident hazards.

(h) DANGEROUS FOR THE ENVIRONMENT: substances showing the values for acute toxicity to the aquatic environment corresponding to table 5.

TABLE 5

LC_{50} (1)	EC_{50} (2)	IC_{50} (3)
mg/l	mg/l	mg/l
$LC_{50} \leq 10$	$EC_{50} \leq 10$	$IC_{50} \leq 10$

(1) LC_{50} fish (96 hours)
(2) EC_{50} daphnia (48 hours)
(3) IC_{50} algae (72 hours)

where the substance is not readily degradable, or the log Pow > 3.0 (unless the experimentally determined BCF < 100).

(i) LD — lethal dose

(j) LC — lethal concentration

(k) EC — effective concentration

(l) IC — inhibiting concentration

(m) Pow — partition coefficient octanol/water

(n) BCF — bioconcentration factor

2. This applies to ammonium nitrate and mixtures of ammonium nitrate where the nitrogen content derived from the ammonium nitrate is > 28% by weight, and to aqueous solutions of ammonium nitrate where the concentration of ammonium nitrate is > 90% by weight.

3. This applies to straight ammonium nitrate fertilizers and to compound fertilizers where the nitrogen content derived from the ammonium nitrate is > 28% by weight (a compound fertilizer contains ammonium nitrate together with phosphate and/or potash).

4. Mixtures and preparations containing such substances shall be treated in the same way as the pure substance unless they no longer exhibit equivalent properties and are not capable of producing transboundary effects.

ANNEX II

INQUIRY COMMISSION PROCEDURE PURSUANT TO ARTICLES 4 AND 5

1. The requesting Party or Parties shall notify the secretariat that it or they is (are) submitting question(s) to an inquiry commission established in accordance with the provisions of this Annex. The notification shall state the subject-matter of the inquiry. The secretariat shall immediately inform all Parties to the Convention of this submission.

2. The inquiry commission shall consist of three members. Both the requesting party and the other party to the inquiry procedure shall appoint a scientific or technical expert and the two experts so appointed shall designate by common agreement a third expert, who shall be the president of the inquiry commission. The latter shall not be a national of one of the parties to the inquiry procedure, nor have his or her usual place of residence in the territory of one of these parties, nor be employed by any of them, nor have dealt with the case in any other capacity.

3. If the president of the inquiry commission has not been designated within two months of the appointment of the second expert, the Executive Secretary of the Economic Commission for Europe shall, at the request of either party, designate the president within a further two-month period.

4. If one of the parties to the inquiry procedure does not appoint an expert within one month of its receipt of the notification by the secretariat, the other party may inform the Executive Secretary of the Economic Commission for Europe, who shall designate the president of the inquiry commission within a further two-month period. Upon designation, the president of the inquiry commission shall request the party which has not appointed an expert to do so within one month. If it fails to do so within that period, the president shall inform the Executive Secretary of the Economic Commission for Europe who shall make this appointment within a further two-month period.

5. The inquiry commission shall adopt its own rules of procedure.

6. The inquiry commission may take all appropriate measures in order to carry out its functions.

7. The parties to the inquiry procedure shall facilitate the work of the inquiry commission and in particular shall, using all means at their disposal:

(a) Provide the inquiry commission with all relevant documents, facilities and information;

(b) Enable the inquiry commission, where necessary, to call witnesses or experts and receive their evidence.

8. The parties and the experts shall protect the confidentiality of any information they receive in confidence during the work of the inquiry commission.

9. If one of the Parties to the inquiry procedure does not appear before the inquiry commission or fails to present its case, the other party may request the inquiry commission to continue the proceedings and to complete its work. Absence of a party or failure of a party to present its case shall not constitute a bar to the continuation and completion of the work of the inquiry commission.

10. Unless the inquiry commission determines otherwise because of the particular circumstances of the matter, the expenses of the inquiry commission, including the remuneration of its members, shall be borne equally by the parties to the inquiry procedure. The inquiry commission shall keep a record of all its expenses and shall furnish a final statement thereof to the parties.

11. Any Party which has an interest of a factual nature in the subject-matter of the inquiry procedure and which may be affected by an opinion in the matter may intervene in the proceedings with the consent of the inquiry commission.

12. The decisions of the inquiry commission on matters of the procedure shall be taken by majority vote of its members. The final opinion of the inquiry commission shall reflect the view of the majority of its members and shall include any dissenting view.

13. The inquiry commission shall present its final opinion within two months of the date on which it was established, unless it finds it necessary to extend this time-limit for a period which should not exceed two months.

14. The final opinion of the inquiry commission shall be based on accepted scientific principles. The final opinion shall be transmitted by the inquiry commission to the parties to the inquiry procedure and to the secretariat.

ANNEX III

PROCEDURES PURSUANT TO ARTICLE 4

1. A Party of origin may request consultations with another Party, in accordance with paragraphs 2 to 5 of this Annex, in order to determine whether that Party is an affected Party.

2. For a proposed or existing hazardous activity, the Party of origin shall, for the purposes of ensuring adequate and effective consultations, provide for the notification at appropriate levels of any Party that it considers may be an affected Party as early as possible and no later than when informing its own public about that proposed or existing activity. For existing hazardous activities such notification shall be provided no later than two years after the entry into force of this Convention for a Party of origin.

3. The notification shall contain, inter alia:

(a) Information on the hazardous activity, including any available information or report, such as information produced in accordance with Article 6, on its possible transboundary effects in the event of an industrial accident;

(b) An indication of a reasonable time within which a response under paragraph 4 of this Annex is required, taking into account the nature of the activity;

and may include the information set out in paragraph 6 of this Annex.

4. The notified Parties shall respond to the Party of origin within the time specified in the notification, acknowledging receipt of the notification and indicating whether they intend to enter into consultation.

5. If a notified Party indicates that it does not intend to enter into consultation, or if it does not respond within the time specified in the notification, the provisions set down in the following paragraphs of this Annex shall not apply. In such circumstances, the right of a Party of origin to determine whether to carry out an assessment and analysis on the basis of its national law and practice is not prejudiced.

6. Upon receipt of a response from a notified Party indicating its desire to enter into consultation, the Party of origin shall, if it has not already done so, provide to the notified Party:

(a) Relevant information regarding the time schedule for analysis, including an indication of the time schedule for the transmittal of comments;

(b) Relevant information on the hazardous activity and its transboundary effects in the event of an industrial accidents;

(c) The opportunity to participate in evaluations of the information or any report demonstrating possible transboundary effects.

7. An affected Party shall, at the request of the Party of origin, provide the latter with reasonably obtainable information relating to the area under the jurisdiction of the affected Party capable of being affected, where such information is necessary for the preparation of the assessment and analysis and measures. The information shall be furnished promptly and, as appropriate, through a joint body where one exists.

8. The Party of origin shall furnish the affected Party directly, as appropriate, or, where one exists, through a joint body with the analysis and evaluation documentation as described in Annex V, paragraphs 1 and 2.

9. The Parties concerned shall inform the Public in areas reasonably capable of being affected by the hazardous activity and shall arrange for the distribution of the analysis and evaluation documentation to it and to authorities in the relevant areas. The Parties shall ensure them an opportunity for making comments on, or objections to, the hazardous activity and shall arrange for their views to be submitted to the competent authority of the Party of origin, either directly to that authority or, where appropriate, through the Party of origin, within a reasonable time.

10. The Party of origin shall, after completion of the analysis and evaluation documentation, enter without undue delay into consultations with the affected Party concerning, inter alia, the transboundary effects of the hazardous activity in the event of an industrial accident, and measures to reduce or eliminate its effects. The consultations may relate to:

(a) Possible alternatives to the hazardous activity, including the no-action alternative, and possible measures to mitigate transboundary effects at the expense of the Party of origin;

(b) Other forms of possible mutual assistance for reducing any transboundary effects;

(c) Any other appropriate matters.

The Parties concerned shall, on the commencement of such consultations, agree on a reasonable time-frame for the duration of the consultation period. Any such consultations may be conducted through an appropriate joint body, where one exists.

11. The Parties concerned shall ensure that due account is taken of the analysis and evaluation, as well as of the comments received pursuant to paragraph 9 of this Annex and of the outcome of the consultations referred to in paragraph 10 of this Annex.

12. The Party of origin shall notify the affected Parties of any decision on the activity, along with the reasons and considerations on which it was based.

13. If, after additional and relevant information concerning the transboundary effects of a hazardous activity and which was not available at the time consultations were held with respect to that activity, becomes available to a Party concerned, that Party shall immediately inform the other Party or Parties concerned. If one of the Parties concerned so requests, renewed consultations shall be held.

ANNEX IV

PREVENTIVE MEASURES PURSUANT TO ARTICLE 6

The following measures may be carried out, depending on national laws and practices, by Parties, competent authorities, operators, or by joint efforts:

1. The setting of general or specific safety objectives;

2. The adoption of legislative provisions or guidelines concerning safety measures and safety standards;

3. The identification of those hazardous activities which require special preventive measures, which may include a licensing or authorization system;

4. The evaluation of risk analyses or of safety studies for hazardous activities and an action plan for the implementation of necessary measures;

5. The provision to the competent authorities of the information needed to assess risks;

6. The application of the most appropriate technology in order to prevent industrial accidents and protect human beings and the environment;

7. The undertaking, in order to prevent industrial accidents, of the appropriate education and training of all persons engaged in hazardous activities on-site under both normal and abnormal conditions;

8. The establishment of internal managerial structures and practices designed to implement and maintain safety regulations effectively;

9. The monitoring and auditing of hazardous activities and the carrying out of inspections.

ANNEX V

ANALYSIS AND EVALUATION

1. The analysis and evaluation of the hazardous activity should be performed with a scope and to a depth which vary depending on the purpose for which they are carried out.

2. The following table illustrates, for the purposes of the related Articles, matters which should be considered in the analysis and evaluation, for the purposes listed:

Purpose of analysis	Matters to be considered:
Emergency planning under Article 8	(1) The quantities and properties of hazardous substances on the site; (2) Brief descriptive scenarios of a representative sample of industrial accidents possibly arising from the hazardous activity, including an indication of the likelihood of each; (3) For each scenario: (a) The approximate quantity of a release; (b) The extent and severity of the resulting consequences both for people and for the non-human environment in favourable and unfavourable conditions, including the extent of resulting hazard zones; (c) The time-scale within which the industrial accident could develop from the initiating event; (d) Any action which could be taken to minimize the likelihood of escalation. (4) The size and distribution of the population in the vicinity, including any large concentrations of people potentially in the hazard zone; (5) The age, mobility and susceptibility of that population.
Decision-making on siting under Article 7	In addition to items (1) and (5) above: (6) The severity of the harm inflicted on people and the environment, depending on the nature and circumstances of the release; (7) The distance from the location of the hazardous activity at which harmful effects on people and the environment may reasonably occur in the event of an industrial accident; (8) The same information not only for the present situation but also for planned or reasonably foreseeable future developments.

Information to the public under Article 9	In addition to items (1) to (4) above: (9) The people who may be affected by an industrial accident.
Preventive measures under Article 6	In addition to items (4) to (9) above, more detailed versions of the descriptions and assessments set out in items (1) to (3) will be needed for preventive measures. In addition to those descriptions and assessments, the following matters should also be covered: (10) The conditions and quantities in which hazardous materials are handled; (11) A list of the scenarios for the types of industrial accidents with serious effects, to include examples covering the full range of incident size and the possibility of effects from adjacent activities; (12) For each scenario, a description of the events which could initiate an industrial accident and the steps whereby it could escalate; (13) An assessment, at least in general terms, of the likelihood of each step occurring, taking into account the arrangements in (14); (14) A description of the preventive measures in terms of both equipment and procedures designed to minimize the likelihood of each step occurring; (15) An assessment of the effects that deviations from normal operating conditions could have, and the consequent arrangements for safe shut-down of the hazardous activity or any part thereof in an emergency, and of the need for staff training to ensure that potentially serious deviations are recognized at an early stage and appropriate action taken; (16) An assessment of the extent to which modifications, repair work and maintenance work on the hazardous activity could place the control measures at risk, and the consequent arrangements to ensure that control is maintained.

ANNEX VI

DECISION-MAKING ON SITING PURSUANT TO ARTICLE 7

The following illustrates the matters which should be considered pursuant to Article 7:

1. The results of risk analysis and evaluation, including an evaluation pursuant to Annex V of the physical characteristics of the area in which the hazardous activity is being planned;

2. The results of consultations and public participation processes;

3. An analysis of the increase or decrease of the risk caused by any development in the territory of the affected Party in relation to an existing hazardous activity in the territory of the Party of origin;

4. The evaluation of the environmental risks, including any transboundary effects;

5. An evaluation of the new hazardous activities which could be a source of risk;

6. A consideration of the siting of new, and significant modifications to existing hazardous activities at a safe distance from existing centres of population, as well as the establishment of a safety area around hazardous activities; within such areas, developments which would increase the populations at risk, or otherwise increase the severity of the risk, should be closely examined.

ANNEX VII

EMERGENCY PREPAREDNESS MEASURES PURSUANT TO ARTICLE 8

1. All contingency plans, both on- and off-site, should be coordinated to provide a comprehensive and effective response to industrial accidents.

2. The contingency plans should include the actions necessary to localize emergencies and to prevent or minimize their transboundary effects. They should also include arrangements for warning people and, where appropriate, arrangements for their evacuation, other protective or rescue actions and health services.

3. Contingency plans should give on-site personnel, people who might be affected off site and rescue forces, details of technical and organizational procedures which are appropriate for response in the event of an industrial accident capable of having transboundary effects and to prevent and minimize effects on people and the environment, both on and off site.

4. Examples of matters which could be covered by on-site contingency plans include:

(a) Organizational roles and responsibilities on site for dealing with an emergency;

(b) A description of the action which should be taken in the event of an industrial accident, or an imminent threat thereof, in order to control the condition or event, or details of where such a description can be found;

(c) A description of the equipment and resources available;

(d) Arrangements for providing early warning of industrial accidents to the public authority responsible for the off-site emergency response, including the type of information which should be included in an initial warning and the arrangements for providing more detailed information as it becomes available;

(e) Arrangements for training personnel in the duties they will be expected to perform.

5. Examples of matters which could be covered by off-site contingency plans include:

(a) Organizational roles and responsibilities off-site for dealing with an emergency, including how integration with on-site plans is to be achieved;

(b) Methods and procedures to be followed by emergency and medical personnel;

(c) Methods for rapidly determining the affected area;

(d) Arrangements for ensuring that prompt industrial accident notification is made to affected or potentially affected Parties and that that liaison is maintained subsequently;

(e) Identification of resources necessary to implement the plan and the arrangements for coordination;

(f) Arrangements for providing information to the public including, where appropriate, the arrangements for reinforcing and repeating the information provided to the public pursuant to article 9;

(g) Arrangements for training and exercises.

6. Contingency plans could include the measures for: treatment; collection; clean-up; storage; removal and safe disposal of hazardous substances and contaminated material; and restoration.

ANNEX VIII

INFORMATION TO THE PUBLIC PURSUANT TO ARTICLE 9

1. The name of the company, address of the hazardous activity and identification by position held of the person giving the information;

2. An explanation in simple terms of the hazardous activity, including the risks;

3. The common names or the generic names or the general danger classification of the substances and preparations which are involved in the hazardous activity, with an indication of their principal dangerous characteristics;

4. General information resulting from an environmental impact assessment, if available and relevant;

5. The general information relating to the nature of an industrial accident that could possibly occur in the hazardous activity, including its potential effects on the population and the environment;

6. Adequate information on how the affected population will be warned and kept informed in the event of an industrial accident;

7. Adequate information on the actions the affected population should take and on the behaviour they should adopt in the event of an industrial accident;

8. Adequate information on arrangements made regarding the hazardous activity, including liaison with the emergency services, to deal with industrial accidents, to reduce the severity of the industrial accidents and to mitigate their effects;

9. General information on the emergency services' off-site contingency plan, drawn up to cope with any off-site effects, including the transboundary effects of an industrial accident;

10. General information on special requirements and conditions to which the hazardous activity is subject according to the relevant national regulations and/or administrative provisions, including licensing or authorization systems;

11. Details of where further relevant information can be obtained.

ANNEX IX

INDUSTRIAL ACCIDENT NOTIFICATION SYSTEMS PURSUANT TO ARTICLE 10

1. The industrial accident notification systems shall enable the speediest possible transmission of data and forecasts according to previously determined codes using compatible data-transmission and data-treatment systems for emergency warning and response, and for measures to minimize and contain the consequences of transboundary effects, taking account of different needs at different levels.

2. The industrial accident notification shall include the following:

(a) The type and magnitude of the industrial accident, the hazardous substances involved (if known), and the severity of its possible effects;

(b) The time of occurrence and exact location of the accident;

(c) Such other available information as necessary for an efficient response to the industrial accident.

3. The industrial accident notification shall be supplemented at appropriate intervals, or whenever required, by further relevant information on the development of the situation concerning transboundary effects.

4. Regular tests and reviews of the effectiveness of the industrial accident notification systems shall be undertaken, including the regular training of the personnel involved. Where appropriate, such tests, reviews and training shall be performed jointly.

ANNEX X

MUTUAL ASSISTANCE PURSUANT TO ARTICLE 12

1. The overall direction, control, coordination and supervision of the assistance is the responsibility of the requesting Party. The personnel involved in the assisting operation shall act in accordance with the relevant laws of the requesting Party. The appropriate authorities of the requesting Party shall cooperate with the authority designated by the assisting Party, pursuant to Article 17, as being in charge of the immediate operational supervision of the personnel and the equipment provided by the assisting Party.

2. The requesting Party shall, to the extent of its capabilities, provide local facilities and services for the proper and effective administration of the assistance, and shall ensure the protection of personnel, equipment and materials brought into its territory by, or on behalf of, the assisting Party for such a purpose.

3. Unless otherwise agreed by the Parties concerned, assistance shall be provided at the expense of the requesting Party. The assisting Party may at any time waive wholly or partly the reimbursement of costs.

4. The requesting Party shall use its best efforts to afford to the assisting Party and persons acting on its behalf the privileges, immunities or facilities necessary for the expeditious performance of their assistance functions. The requesting Party shall not be required to apply this provision to its own nationals or permanent residents or to afford them the privileges and immunities referred to above.

5. A Party shall, at the request of the requesting or assisting Party, endeavour to facilitate the transit through its territory of duly notified personnel, equipment and property involved in the assistance to and from the requesting Party.

6. The requesting Party shall facilitate the entry into, stay in and departure from its national territory of duly notified personnel and of equipment and property involved in the assistance.

7. With regard to acts resulting directly from the assistance provided, the requesting Party shall, in respect of the death of or injury to persons, damage to or loss of property, or damage to the environment caused within its territory in the course of the provision of the assistance requested, hold harmless and indemnify the assisting Party or persons acting on its behalf and compensate them for death or injury suffered by them and for loss of or damage to equipment or other property involved in the assistance. The requesting Party shall be responsible for dealing with claims brought by third parties against the assisting Party or persons acting on its behalf.

8. The Parties concerned shall cooperate closely in order to facilitate the settlement of legal proceedings and claims which could result from assistance operations.

9. Any Party may request assistance relating to the medical treatment or the temporary relocation in the territory of another Party of persons involved in an accident.

10. The affected or requesting Party may at any time, after appropriate consultations and by notification, request the termination of assistance received or provided under this Convention. Once such a request has been made, the Parties concerned shall consult one another with a view to making arrangements for the proper termination of the assistance.

ANNEX XI

EXCHANGE OF INFORMATION PURSUANT TO ARTICLE 15

Information shall include the following elements, which can also be the subject of multilateral and bilateral cooperation:

(a) Legislative and administrative measures, policies, objectives and priorities for prevention, preparedness and response, scientific activities and technical measures to reduce the risk of industrial accidents from hazardous activities, including the mitigation of transboundary effects;

(b) Measures and contingency plans at the appropriate level affecting other Parties;

(c) Programmes for monitoring, planning, research and development, including their implementation and surveillance;

(d) Measures taken regarding prevention of, preparedness for and response to industrial accidents;

(e) Experience with industrial accidents and cooperation in response to industrial accidents with transboundary effects;

(f) The development and application of the best available technologies for improved environmental protection and safety;

(g) Emergency preparedness and response;

(h) Methods used for the prediction of risks, including criteria for the monitoring and assessment of transboundary effects.

ANNEX XII

TASKS FOR MUTUAL ASSISTANCE PURSUANT TO ARTICLE 18, PARAGRAPH 4

1. Information and data collection and dissemination

(a) Establishment and operation of an industrial accident notification system that can provide information on industrial accidents and on experts, in order to involve the experts as rapidly as possible in providing assistance;

(b) Establishment and operation of a data bank for the reception, processing and distribution of necessary information on industrial accidents, including their effects, and also on measures applied and their effectiveness;

(c) Elaboration and maintenance of a list of hazardous substances, including their relevant characteristics, and of information on how to deal with those in the event of an industrial accident;

(d) Establishment and maintenance of a register of experts to provide consultative and other kinds of assistance regarding preventive, preparedness and response measures, including restoration measures;

(e) Maintenance of a list of hazardous activities;

(f) Production and maintenance of a list of hazardous substances covered by the provisions of Annex I, Part I.

2. Research, training and methodologies

(a) Development and provision of models based on experience from industrial accidents, and scenarios for preventive, preparedness and response measures;

(b) Promotion of education and training, organization of international symposia and promotion of cooperation in research and development.

3. Technical assistance

(a) Fulfillment of advisory functions aimed at strengthening the ability to apply preventive, preparedness and response measures;

(b) Undertaking, at the request of a Party, of inspections of its hazardous activities and the provision of assistance in organizing its national inspections according to the requirements of this Convention.

4. Assistance in the case of an emergency

Provision, at the request of a Party, of assistance by, inter alia, sending experts to the site of an industrial accident to provide consultative and other kinds of assistance in response to the industrial accident.

ANNEX XIII

ARBITRATION

1. The claimant Party or Parties shall notify the secretariat that the Parties have agreed to submit the dispute to arbitration pursuant to Article 21, paragraph 2 of this Convention. The notification shall state the subject-matter of arbitration and include, in particular, the Articles of this Convention, the interpretation or application of which is at issue. The secretariat shall forward the information received to all Parties to this Convention.

2. The arbitral tribunal shall consist of three members. Both the claimant Party or Parties and the other Party or Parties to the dispute shall appoint an arbitrator, and the two arbitrators so appointed shall designate by common agreement the third arbitrator, who shall be the president of the arbitral tribunal. The latter shall not be a national of one of the parties to the dispute, nor have his or her usual place of residence in the territory of one of these parties, nor be employed by any of them, nor have dealt with the case in any other capacity.

3. If the president of the arbitral tribunal has not been designated within two months of the appointment of the second arbitrator, the Executive Secretary of the Economic Commission for Europe shall, at the request of either party to the dispute, designate the president within a further two-month period.

4. If one of the parties to the dispute does not appoint an arbitrator within two months of the receipt of the request, the other party may so inform the Executive Secretary of the Economic Commission for Europe, who shall designate the president of the arbitral tribunal within a further two-month period. Upon designation, the president of the arbitral tribunal shall request the party which has not appointed an arbitrator to do so within two months. If it fails to do so within that period, the president shall inform the Executive Secretary of the Economic Commission for Europe, who shall make this appointment within a further two-month period.

5. The arbitral tribunal shall render its decision in accordance with international law and in accordance with the provisions of this Convention.

6. Any arbitral tribunal constituted under the provisions set out herein shall draw up its own rules of procedure.

7. The decisions of the arbitral tribunal, both on procedure and on substance, shall be taken by majority vote of its members.

8. The tribunal may take all appropriate measures to establish the facts.

9. The parties to the dispute shall facilitate the work of the arbitral tribunal and, in particular shall, using all means at their disposal:

(a) Provide the tribunal with all relevant documents, facilities and information;

(b) Enable the tribunal, where necessary, to call witnesses or experts and receive their evidence.

10. The parties to the dispute and the arbitrators shall protect the confidentiality of any information they receive in confidence during the proceedings of the arbitral tribunal.

11. The arbitral tribunal may, at the request of one of the parties, recommend interim measures of protection.

12. If one of the parties to the dispute does not appear before the arbitral tribunal or fails to defend its case, the other party may request the tribunal to continue the proceedings and to render its final decision. Absence of a party or failure of a party to defend its case shall not constitute a bar to the proceedings.

13. The arbitral tribunal may hear and determine counter-claims arising directly out of the subject-matter of the dispute.

14. Unless the arbitral tribunal determines otherwise because of the particular circumstances of the case, the expenses of the tribunal, including the remuneration of its members, shall be borne equally by the parties to the dispute. The tribunal shall keep a record of all its expenses and shall furnish a final statement thereof to the parties to the dispute.

15. Any Party to this Convention which has an interest of a legal nature in the subject-matter of the dispute and which may be affected by a decision in the case, may intervene in the proceedings with the consent of the tribunal.

16. The arbitral tribunal shall render its award within five months of the date on which it is established unless it finds it necessary to extend the time-limit for a period which should not exceed five months.

17. The award of the arbitral tribunal shall be accompanied by a statement of reasons. It shall be final and binding upon all parties to the dispute. The award will be transmitted by the arbitral tribunal to the parties to the dispute and to the secretariat. The secretariat will forward the information received to all Parties to this Convention.

18. Any dispute which may arise between the parties concerning the interpretation or execution of the award may be submitted by either party to the arbitral tribunal which made the award or, if the latter cannot be seized thereof, to another tribunal constituted for this purpose in the same manner as the first.

United Nations Framework Convention on Climate Change, New York, 1992

Done at New York 9 May 1992

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UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE

The Parties to this Convention,

Acknowledging that change in the Earth's climate and its adverse effects are a common concern of humankind,

Concerned that human activities have been substantially increasing the atmospheric concentrations of greenhouse gases, that these increases enhance the natural greenhouse effect, and that this will result on average in an additional warming of the Earth's surface and atmosphere and may adversely affect natural ecosystems and humankind,

Noting that the largest share of historical and current global emissions of greenhouse gases has originated in developed countries, that per capita emissions in developing countries are still relatively low and that the share of global emissions originating in developing countries will grow to meet their social and development needs,

Aware of the role and importance in terrestrial and marine ecosystems of sinks and reservoirs of greenhouse gases,

Noting that there are many uncertainties in predictions of climate change, particularly with regard to the timing, magnitude and regional patterns thereof,

Acknowledging that the global nature of climate change calls for the widest possible cooperation by all countries and their participation in an effective and appropriate international response, in accordance with their common but differentiated responsibilities and respective capabilities and their social and economic conditions,

Recalling the pertinent provisions of the Declaration of the United Nations Conference on the Human Environment, adopted at Stockholm on 16 June 1972,

Recalling also that States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction,

Reaffirming the principle of sovereignty of States in international cooperation to address climate change,

Recognizing that States should enact effective environmental legislation, that environmental standards, management objectives and priorities should reflect the environmental and developmental context to which they apply, and that standards applied by some countries may be inappropriate and of unwarranted economic and social cost to other countries, in particular developing countries,

Recalling the provisions of General Assembly resolution 44/228 of 22 December 1989 on the United Nations Conference on Environment and Development, and resolutions 43/53 of 6 December 1988, 44/207 of 22 December 1989, 45/212 of 21 December 1990 and 46/169 of 19 December 1991 on protection of global climate for present and future generations of mankind,

Recalling also the provisions of General Assembly resolution 44/206 of 22 December 1989 on the possible adverse effects of sea level rise on islands and coastal areas, particularly low-lying coastal areas and the pertinent provisions of General Assembly resolution 44/172 of 19 December 1989 on the implementation of the Plan of Action to Combat Desertification,

Recalling further the Vienna Convention for the Protection of the Ozone Layer, 1985, and the Montreal Protocol on Substances that Deplete the Ozone Layer, 1987, as adjusted and amended on 29 June 1990,

Noting the Ministerial Declaration of the Second World Climate Conference adopted on 7 November 1990,

Conscious of the valuable analytical work being conducted by many States on climate change and of the important contributions of the World Meteorological Organization, the United Nations Environment Programme and other organs, organizations and bodies of the United Nations system, as well as other international and intergovernmental bodies, to the exchange of results of scientific research and the coordination of research,

Recognizing that steps required to understand and address climate change will be environmentally, socially and economically most effective if they are based on relevant scientific, technical and economic considerations and continually re-evaluated in the light of new findings in these areas,

Recognizing that various actions to address climate change can be justified economically in their own right and can also help in solving other environmental problems,

Recognizing also the need for developed countries to take immediate action in a flexible manner on the basis of clear priorities, as a first step towards comprehensive response strategies at the global, national and, where agreed, regional levels that take into account all greenhouse gases, with due consideration of their relative contributions to the enhancement of the greenhouse effect,

Recognizing further that low-lying and other small island countries, countries with low-lying coastal, arid and semi-arid areas or areas liable to floods, drought and desertification, and developing countries with fragile mountainous ecosystems are particularly vulnerable to the adverse effects of climate change,

Recognizing the special difficulties of those countries, especially developing countries, whose economies are particularly dependent on fossil fuel production, use and exportation, as a consequence of action taken on limiting greenhouse gas emissions,

Affirming that responses to climate change should be coordinated with social and economic development in an integrated manner with a view to avoiding adverse impacts on the latter, taking into full account the legitimate priority needs of developing countries for the achievement of sustained economic growth and the eradication of poverty,

Recognizing that all countries, especially developing countries, need access to resources required to achieve sustainable social and economic development and that, in order for developing countries to progress towards that goal, their energy consumption will need to grow taking into account the possibilities for achieving greater energy efficiency and for controlling greenhouse gas emissions in general, including through the application of new technologies on terms which make such an application economically and socially beneficial,

Determined to protect the climate system for present and future generations,

Have agreed as follows:

ARTICLE I

DEFINITIONS

For the purposes of this Convention:

1. "Adverse effects of climate change" means changes in the physical environment or biota resulting from climate change which have significant deleterious effects on the composition, resilience or productivity of natural and managed ecosystems or on the operation of socio-economic systems or on human health and welfare.

2. "Climate change" means a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods.

3. "Climate system" means the totality of the atmosphere, hydrosphere, biosphere and geosphere and their interactions.

4. "Emissions" means the release of greenhouse gases and/or their precursors into the atmosphere over a specified area and period of time.

5. "Greenhouse gases" means those gaseous constituents of the atmosphere, both natural and anthropogenic, that absorb and re-emit infrared radiation.

6. "Regional economic integration organization" means an organization constituted by sovereign States of a given region which has competence in respect of matters governed by this Convention or its protocols and has been duly authorized, in accordance with its internal procedures, to sign, ratify, accept, approve or accede to the instruments concerned.

7. "Reservoir" means a component or components of the climate system where a greenhouse gas or a precursor of a greenhouse gas is stored.

8. "Sink" means any process, activity or mechanism which removes a greenhouse gas, an aerosol or a precursor of a greenhouse gas from the atmosphere.

9. "Source" means any process or activity which releases a greenhouse gas, an aerosol or a precursor of a greenhouse gas into the atmosphere.

ARTICLE 2

OBJECTIVE

The ultimate objective of this Convention and any related legal instruments that the Conference of the Parties may adopt is to achieve, in accordance with the relevant provisions of the Convention, stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner.

ARTICLE 3

PRINCIPLES

In their actions to achieve the objective of the Convention and to implement its provisions, the Parties shall be guided, inter alia, by the following:

1. The Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities. Accordingly, the developed country Parties should take the lead in combating climate change and the adverse effects thereof.

2. The specific needs and special circumstances or developing country Parties, especially those that are particularly vulnerable to the adverse effects of climate change, and or those Parties, especially developing country Parties, that would have to hear a disproportionate or abnormal burden under the Convention, should be given full consideration.

3. The Parties should take precautionary measures to anticipate, prevent or minimize the causes of climate change and mitigate its adverse effects. Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing such measures, taking into account that policies and measures to deal with climate change should be cost-effective so as to ensure global benefits at the lowest possible cost. To achieve this, such policies and measures should take into account different socio-economic contexts, be comprehensive, cover all relevant sources, sinks and reservoirs of greenhouse gases and adaptation, and comprise all economic sectors. Efforts to address climate change may be carried out cooperatively by interested Parties.

4. The Parties have a right to, and should, promote sustainable development. Policies and measures to protect the climate system against human-induced change should be appropriate for the specific conditions of each Party and should be integrated with national development programmes, taking into account that economic development is essential for adopting measures to address climate change.

5. The Parties should cooperate to promote a supportive and open international economic system that would lead to sustainable economic growth and development in all Parties, particularly developing country Parties, thus enabling them better to address the problems of climate change. Measures taken to combat climate change, including unilateral ones, should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade.

ARTICLE 4

COMMITMENTS

1. All Parties, taking into account their common but differentiated responsibilities and their specific national and regional development priorities, objectives and circumstances, shall:

(a) Develop, periodically update, publish and make available to the Conference of the Parties, in accordance with Article 12, national inventories of anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol, using comparable methodologies to be agreed upon by the Conference of the Parties;

(b) Formulate, implement publish and regularly update national and, where appropriate, regional programmes containing measures to mitigate climate change by addressing anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol, and measures to facilitate adequate adaptation to climate change;

(c) Promote and cooperate in the development application and diffusion, including transfer, of technologies, practices and processes that control, reduce or prevent anthropogenic emissions of greenhouse gases

not controlled by the Montreal Protocol in all relevant sectors, including the energy, transport industry, agriculture, forestry and waste management sectors;

(d) Promote sustainable management and promote and cooperate in the conservation and enhancement as appropriate, of sinks and reservoirs of all greenhouse gases not controlled by the Montreal Protocol, including biomass, forests and oceans as well as other terrestrial, coastal and marine ecosystems;

(e) Cooperate in preparing for adaptation to the impacts of climate change; develop and elaborate appropriate and integrated plans for coastal zone management, water resources and agriculture, and for the protection and rehabilitation of areas, particularly in Africa, affected by drought and desertification, as well as floods;

(f) Take climate change considerations into account, to the extent feasible, in their relevant social, economic and environmental policies and actions, and employ appropriate methods, for example impact assessments, formulated and determined nationally, with a view to minimizing adverse effects on the economy, on public health and on the quality of the environment, of projects or measures undertaken by them to mitigate or adapt to climate change;

(g) Promote and cooperate in scientific, technological, technical, socio-economic and other research, systematic observation and development of data archives related to the climate system and intended to further the understanding and to reduce or eliminate the remaining uncertainties regarding the causes, effects, magnitude and timing of climate change and the economic and social consequences of various response strategies;

(h) Promote and cooperate in the full, open and prompt exchange of relevant scientific, technological, technical, socio-economic and legal information related to the climate system and climate change, and to the economic and social consequences of various response strategies;

(i) Promote and cooperate in education, training and public awareness related to climate change and encourage the widest participation in this process, including that of nongovernmental organizations; and

(j) Communicate to the Conference of the Parties information related to implementation, in accordance with Article 12.

2. The developed country Parties and other Parties included in annex I commit themselves specifically as provided for in the following:

(a) Each of these Parties shall adopt national[1/] policies and take corresponding measures on the mitigation of climate change, by limiting its anthropogenic emissions of greenhouse gases and protecting and enhancing its greenhouse gas sinks and reservoirs. These policies and measures will demonstrate that developed countries are taking the lead in modifying longer-term trends in anthropogenic emissions consistent with the objective of the Convention, recognizing that the return by the end of the present decade to earlier levels of anthropogenic emissions of carbon dioxide and other greenhouse gases not controlled by the Montreal Protocol would contribute to such modification, and taking into account the differences in these Parties' starting points and approaches, economic structures and resource bases, the need to maintain strong and sustainable economic growth, available technologies and other individual circumstances, as well as the need for equitable and appropriate contributions by each of these Parties to the global effort regarding that objective. These Parties may implement such policies and measures jointly with other Parties and may assist other Parties in contributing to the achievement of the objective of the Convention and, in particular, that of this subparagraph;

(b) In order to promote progress to this end, each of these Parties shall communicate, within six months of the entry into force of the Convention for it and periodically thereafter, and in accordance with Article 12, detailed information on its policies and measures referred to in subparagraph (a) above, as well as on its resulting projected anthropogenic emissions by sources and removals by sinks of greenhouse gases not controlled by the Montreal Protocol for the period referred to in subparagraph (a), with the aim of returning individually or jointly to their 1990 levels of these anthropogenic emissions of carbon dioxide

1/ This includes policies and measures adopted by regional economic integration organizations.

and other greenhouse gases not controlled by the Montreal Protocol. This information will be reviewed by the Conference of the Parties, at its first session and periodically thereafter, in accordance with Article 7;

(c) Calculations of emissions by sources and removals by sinks of greenhouse gases for the purposes of subparagraph (b) above should take into account the best available scientific knowledge, including of the effective capacity of sinks and the respective contributions of such gases to climate change. The Conference of the Parties shall consider and agree on methodologies for these calculations at its first session and review them regularly thereafter;

(d) The Conference of the Parties shall, at its first session, review the adequacy of subparagraphs (a) and (b) above. Such review shall be carried out in the light of the best available scientific information and assessment on climate change and its impacts, as well as relevant technical, social and economic information. Based on this review, the Conference of the Parties shall take appropriate action, which may include the adoption of amendments to the commitments in subparagraphs (a) and (b) above. The Conference of the Parties, at its first session, shall also take decisions regarding criteria for joint implementation as indicated in subparagraph (a) above. A second review of subparagraphs (a) and (b) shall take place not later than 31 December 1998, and thereafter at regular intervals determined by the Conference of the Parties, until the objective of the Convention is met;

(e) Each of these Parties shall:

(i) coordinate as appropriate with other such Parties, relevant economic and administrative instruments developed to achieve the objective of the Convention; and

(ii) identify and periodically review its own policies and practices which encourage activities that lead to greater levels of anthropogenic emissions of greenhouse gases not controlled by the Montreal Protocol than would otherwise occur;

(f) The Conference of the Parties shall review, not later than 31 December 1998, available information with a view to taking decisions regarding such amendments to the lists in annexes I and II as may be appropriate, with the approval of the Party concerned;

(g) Any Party not included in annex I may, in its instrument of ratification, acceptance, approval or accession, or at any time thereafter, notify the Depositary that it intends to be bound by subparagraphs (a) and (b) above. The Depositary shall inform the other signatories and Parties of any such notification.

3. The developed country Parties and other developed Parties included in annex II shall provide new and additional financial resources to meet the agreed full costs incurred by developing country Parties in complying with their obligations under Article 12, paragraph 1. They shall also provide such financial resources, including for the transfer of technology, needed by the developing country Parties to meet the agreed full incremental costs of implementing measures that are covered by paragraph 1 of this Article and that are agreed between a developing country Party and the international entity or entities referred to in Article 11, in accordance with that Article. The implementation of these commitments shall take into account the need for adequacy and predictability in the flow of funds and the importance of appropriate burden sharing among the developed country Parties.

4. The developed country Parties and other developed Parties included in annex II shall also assist the developing country Parties that are particularly vulnerable to the adverse effects of climate change in meeting costs of adaptation to those adverse effects.

5. The developed country Parties and other developed Parties included in annex II shall take all practicable steps to promote, facilitate and finance, as appropriate, the transfer of, or access to, environmentally sound technologies and know-how to other Parties, particularly developing country Parties, to enable them to implement the provisions of the Convention. In this process, the developed country Parties shall support the development and enhancement of endogenous capacities and technologies of developing country Parties. Other Parties and organizations in a position to do so may also assist in facilitating the transfer of such technologies.

6. In the implementation of their commitments under paragraph 2 above, a certain degree of flexibility shall be allowed by the Conference of the Parties to the Parties included in annex I undergoing the process of transition to a market economy, in order to enhance the ability of these Parties to address climate change, including with regard to the historical level of anthropogenic emissions of greenhouse gases not controlled by the Montreal Protocol chosen as a reference.

7. The extent to which developing country Parties will effectively implement their commitments under the Convention will depend on the effective implementation by developed country Parties of their commitments under the Convention related to financial resources and transfer of technology and will take fully into account that economic and social development and poverty eradication are the first and overriding priorities of the developing country Parties.

8. In the implementation of the commitments in this Article, the Parties shall give full consideration to what actions are necessary under the Convention, including actions related to funding, insurance and the transfer of technology, to meet the specific needs and concerns of developing country Parties arising from the adverse effects of climate change and/or the impact of the implementation of response measures, especially on:

(a) Small island countries;

(b) Countries with low-lying coastal areas;

(c) Countries with arid and semi-arid areas, forested areas and areas liable to forest decay;

(d) Countries with areas prone to natural disasters;

(e) Countries with areas liable to drought and desertification;

(f) Countries with areas of high urban atmospheric pollution;

(g) Countries with areas with fragile ecosystems, including mountainous ecosystems;

(h) Countries whose economies are highly dependent on income generated from the production, processing and export, and/or on consumption of fossil fuels and associated energy-intensive products; and

(i) Land-locked and transit countries.

Further, the Conference of the Parties may take actions, as appropriate, with respect to this paragraph.

9. The Parties shall take full account of the specific needs and special situations of the least developed countries in their actions with regard to funding and transfer of technology.

10. The Parties shall, in accordance with Article 10, take into consideration in the implementation of the commitments of the Convention the situation of Parties, particularly developing country Parties, with economies that are vulnerable to the adverse effects of the implementation of measures to respond to climate change. This applies notably to Parties with economies that are highly dependent on income generated from the production, processing and export, and/or consumption of fossil fuels and associated energy-intensive products and/or the use of fossil fuels for which such Parties have serious difficulties in switching to alternatives.

ARTICLE 5

RESEARCH AND SYSTEMATIC OBSERVATION

In carrying out their commitments under Article 4, paragraph 1(g), the Parties shall:

(a) Support and further develop, as appropriate, international and intergovernmental programmes and networks or organizations aimed at defining, conducting, assessing and financing research, data collection and systematic observation, taking into account the need to minimize duplication of effort;

(b) Support international and intergovernmental efforts to strengthen systematic observation and national scientific and technical research capacities and capabilities, particularly in developing countries, and to promote access to, and the exchange of, data and analyses thereof obtained from areas beyond national jurisdiction; and

(c) Take into account the particular concerns and needs of developing countries and cooperate in improving their endogenous capacities and capabilities to participate in the efforts referred to in subparagraphs (a) and (b) above.

ARTICLE 6

EDUCATION, TRAINING AND PUBLIC AWARENESS

In carrying out their commitments under Article 4, paragraph 1(i), the Parties shall:

(a) Promote and facilitate at the national and, as appropriate, subregional and regional levels, and in accordance with national laws and regulations, and within their respective capacities:

(i) the development and implementation of educational and public awareness programmes on climate change and its effects;

(ii) public access to information on climate change and its effects;

(iii) public participation in addressing climate change and its effects and developing adequate responses; and

(iv) training of scientific, technical and managerial personnel.

(b) Cooperate in and promote, at the international level, and, where appropriate, using existing bodies:

(i) the development and exchange of educational and public awareness material on climate change and its effects; and

(ii) the development and implementation of education and training programmes, including the strengthening of national institutions and the exchange or secondment of personnel to train experts in this field, in particular for developing countries.

ARTICLE 7

CONFERENCE OF THE PARTIES

1. A Conference of the Parties is hereby established.

2. The Conference of the Parties, as the supreme body of this Convention, shall keep under regular review the implementation of the Convention and any related legal instruments that the Conference of the Parties may adopt, and shall make, within its mandate, the decisions necessary to promote the effective implementation of the Convention. To this end, it shall:

(a) Periodically examine the obligations of the Parties and the institutional arrangements under the Convention, in the light of the objective of the Convention, the experience gained in its implementation and the evolution of scientific and technological knowledge;

(b) Promote and facilitate the exchange of information on measures adopted by the Parties to address climate change and its effects, taking into account the differing circumstances, responsibilities and capabilities of the Parties and their respective commitments under the Convention;

(c) Facilitate, at the request of two or more Parties, the coordination of measures adopted by them to address climate change and its effects, taking into account the differing circumstances, responsibilities and capabilities of the Parties and their respective commitments under the Convention.

(d) Promote and guide, in accordance with the objective and provisions of the Convention, the development and periodic refinement of comparable methodologies, to be agreed on by the Conference of the Parties, inter alia, for preparing inventories of greenhouse gas emissions by sources and removals by sinks, and for evaluating the effectiveness of measures to limit the emissions and enhance the removals of these gases;

(e) Assess, on the basis of all information made available to it in accordance with the provisions of the Convention, the implementation of the Convention by the Parties, the overall effects of the measures taken pursuant to the Convention, in particular environmental, economic and social effects as well as their cumulative impacts and the extent to which progress towards the objective of the Convention is being achieved;

(f) Consider and adopt regular reports on the implementation of the Convention and ensure their publication;

(g) Make recommendations on any matters necessary for the implementation of the Convention;

(h) Seek to mobilize financial resources ia accordance with Article 4, paragraphs 3, 4 and 5, and Article 11;

(i) Establish such subsidiary bodies as are deemed necessary for the implementation of the Convention;

(j) Review reports submitted by its subsidiary bodies and provide guidance to them;

(k) Agree upon and adopt, by consensus, rules of procedure and financial rules for itself and for any subsidiary bodies;

(l) Seek and utilize, where appropriate, the services and cooperation of, and information provided by, competent international organizations and intergovernmental and nongovernmental bodies; and

(m) Exercise such other functions as are required for the achievement of the objective of the Convention as well as all other functions assigned to it under the Convention.

3. The Conference of the Parties shall, at its first session, adopt its own rules of procedure as well as those of the subsidiary bodies established by the Convention, which shall include decision-making procedures for matters not already covered by decision-making procedures stipulated in the Convention. Such procedures may include specified majorities required for the adoption of particular decisions.

4. The first session of the Conference of the Parties shall be convened by the interim secretariat referred to in Article 21 and shall take place not later than one year after the date of entry into force of the Convention. Thereafter, ordinary sessions of the Conference of the Parties shall be held every year unless otherwise decided by the Conference of the Parties.

5. Extraordinary sessions of the Conference of the Parties shall be held at such other times as may be deemed necessary by the Conference, or at the written request of any Party, provided that, within six months of the request being communicated to the Parties by the secretariat, it is supported by at least one-third of the Parties.

6. The United Nations, its specialized agencies and the International Atomic Energy Agency, as well as any State member thereof or observers thereto not Party to the Convention, may be represented at sessions of the Conference of the Parties as observers. Any body or agency, whether national or international, governmental or non-governmental, which is qualified in matters covered by the Convention, and which has informed the secretariat of its wish to be represented at a session of the Conference of the Parties as an observer, may be so admitted unless at least one-third of the Parties present object. The admission and participation of observers shall be subject to the rules of procedure adopted by the Conference of the Parties.

ARTICLE 8

SECRETARIAT

1. A secretariat is hereby established.

2. The functions of the secretariat shall be:

   (a) To make arrangements for sessions of the Conference of the Parties and its subsidiary bodies established under the Convention and to provide them with services as required;

   (b) To compile and transmit reports submitted to it;

   (c) To facilitate assistance to the Parties, particularly developing country Parties, on request, in the compilation and communication of information required in accordance with the provisions of the Convention;

   (d) To prepare reports on its activities and present them to the Conference of the Parties;

   (e) To ensure the necessary coordination with the secretariats of other relevant international bodies;

   (f) To enter, under the overall guidance of the Conference of the Parties, into such administrative and contractual arrangements as may be required for the effective discharge of its functions; and

   (g) To perform the other secretariat functions specified in the Convention and in any of its protocols and such other functions as may be determined by the Conference of the Parties.

3. The Conference of the Parties, at its first session, shall designate a permanent secretariat and make arrangements for its functioning.

ARTICLE 9

SUBSIDIARY BODY FOR SCIENTIFIC AND TECHNOLOGICAL ADVICE

1. A subsidiary body for scientific and technological advice is hereby established to provide the Conference of the Parties and, as appropriate, its other subsidiary bodies with timely information and advice on scientific and technological matters relating to the Convention. This body shall be open to participation by all Parties and shall be multidisciplinary. It shall comprise government representatives competent in the relevant field of expertise. It shall report regularly to the Conference of the Parties on all aspects of its work.

2. Under the guidance of the Conference of the Parties, and drawing upon existing competent international bodies, this body shall:

   (a) Provide assessments of the state of scientific knowledge relating to climate change and its effects;

   (b) Prepare scientific assessments on the effects of measures taken in the implementation of the Convention;

   (c) Identify innovative, efficient and state-of-the-art technologies and know-how and advise on the ways and means of promoting development and/or transferring such technologies;

   (d) Provide advice on scientific programmes, international cooperation in research and development related to climate change, as well as on ways and means of supporting endogenous capacity-building in developing countries; and

   (e) Respond to scientific, technological and methodological questions that the Conference of the Parties and its subsidiary bodies may put to the body.

3. The functions and terms of reference of this body may be further elaborated by the Conference of the Parties.

ARTICLE 10

SUBSIDIARY BODY FOR IMPLEMENTATION

1. A subsidiary body for implementation is hereby established to assist the Conference of the Parties in the assessment and review of the effective implementation of the Convention. This body shall be open to participation by all Parties and comprise government representatives who are experts on matters related to climate change. It shall report regularly to the Conference of the Parties on all aspects of its work.

2. Under the guidance of the Conference of the Parties, this body shall:

(a) Consider the information communicated in accordance with Article 12, paragraph 1, to assess the overall aggregated effect of the steps taken by the Parties in the light of the latest scientific assessments concerning climate change;

(b) Consider the information communicated in accordance with Article 12, paragraph 2, in order to assist the Conference of the Parties in carrying out the reviews required by Article 4, paragraph 2(d); and

(c) Assist the Conference of the Parties, as appropriate, in the preparation and implementation of its decisions.

ARTICLE 11

FINANCIAL MECHANISM

1. A mechanism for the provision of financial resources on a grant or concessional basis, including for the transfer of technology, is hereby defined. It shall function under the guidance of and be accountable to the Conference of the Parties, which shall decide on its policies, programme priorities and eligibility criteria related to this Convention. Its operation shall be entrusted to one or more existing international entities.

2. The financial mechanism shall have an equitable and balanced representation of all Parties within a transparent system of governance.

3. The Conference of the Parties and the entity or entities entrusted with the operation of the financial mechanism shall agree upon arrangements to give effect to the above paragraphs, which shall include the following:

(a) Modalities to ensure that the funded projects to address climate change are in conformity with the policies, programme priorities and eligibility criteria established by the Conference of the Parties;

(b) Modalities by which a particular funding decision may be reconsidered in light of these policies, programme priorities and eligibility criteria;

(c) Provision by the entity or entities of regular reports to the Conference of the Parties on its funding operations, which is consistent with the requirement for accountability set out in paragraph 1 above; and

(d) Determination in a predictable and identifiable manner of the amount of funding necessary and available for the implementation of this Convention and the conditions under which that amount shall be periodically reviewed.

4. The Conference of the Parties shall make arrangements to implement the above mentioned provisions at its first session, reviewing and taking into account the interim arrangements referred to in Article 21, paragraph 3, and

shall decide whether these interim arrangements shall be maintained. Within four years thereafter, the Conference of the Parties shall review the financial mechanism and take appropriate measures.

5. The developed country Parties may also provide and developing country Parties avail themselves of, financial resources related to the implementation of the Convention through bilateral, regional and other multilateral channels.

ARTICLE 12

COMMUNICATION OF INFORMATION RELATED TO IMPLEMENTATION

1. In accordance with Article 4, paragraph 1, each Party shall communicate to the Conference of the Parties, through the secretariat, the following elements of information:

(a) A national inventory of anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol, to the extent its capacities permit, using comparable methodologies to be promoted and agreed upon by the Conference of the Parties;

(b) A general description of steps taken or envisaged by the Party to implement the Convention; and

(c) Any other information that the Party considers relevant to the achievement of the objective of the Convention and suitable for inclusion in its communication, including, if feasible, material relevant for calculations of global emission trends.

2. Each developed country Party and each other Party included in annex I shall incorporate in its communication the following elements of information:

(a) A detailed description of the policies and measures that it has adopted to implement its commitment under Article 4, paragraphs 2(a) and 2(b); and

(b) A specific estimate of the effects that the policies and measures referred to in subparagraph (a) immediately above will have on anthropogenic emissions by its sources and removals by its sinks of greenhouse gases during the period referred to in Article 4, paragraph 2(a).

3. In addition, each developed country Party and each other developed Party included in annex II shall incorporate details of measures taken in accordance with Article 4, paragraphs 3, 4 and 5.

4. Developing country Parties may, on a voluntary basis, propose projects for Financing, including specific technologies, materials, equipment, techniques or practices that would be needed to implement such projects, along with, if possible, an estimate of all incremental costs, of the reductions of emissions and increments of removals of greenhouse gases, as well as an estimate of the consequent benefits.

5. Each developed country Party and each other Party included in annex I shall make its initial communication within six months of the entry into force of the Convention for that Party. Each Party not so listed shall make its initial communication within three years of the entry into force of the Convention for that Party, or of the availability of financial resources in accordance with Article 4, paragraph 3. Parties that are least developed countries may make their initial communication at their discretion. The frequency of subsequent communications by all Parties shall be determined by the Conference of the Parties, taking in to account the differentiated timetable set by this paragraph.

6. Information communicated by Parties under this Article shall be transmitted by the secretariat as soon as possible to the Conference of the Parties and to any subsidiary bodies concerned. If necessary, the procedures for the communication of information may be further considered by the Conference of the Parties.

7. From its first session, the Conference of the Parties shall arrange for the provision to developing country Parties of technical and Financial support, on request, in compiling and communicating information under this Article, as well as in identifying the technical and financial needs associated with proposed projects and response measures

under Article 4. Such support may be provided by other Parties, by competent international organizations and by the secretariat, as appropriate.

8. Any group of Parties may, subject to guidelines adopted by the Conference of the Parties, and to prior notification to the Conference of the Parties, make a joint communication in fulfilment of their obligations under this Article, provided that such a communication includes information on the fulfilment by each of these Parties of its individual obligations under the Convention.

9. Information received by the secretariat that is designated by a Party as confidential, ia accordance with criteria to be established by the Conference of the Parties, shall be aggregated by the secretariat to protect its confidentiality before being made available to any of the bodies involved in the communication and review of information.

10. Subject to paragraph 9 above, and without prejudice to the ability of any Party to make public its communication at any time, the secretariat shall make communications by Parties under this Article publicly available at the time they are submitted to the Conference of the Parties.

ARTICLE 13

RESOLUTION OF QUESTIONS REGARDING IMPLEMENTATION

The Conference of the Parties shall, at its first session, consider the establishment of a multilateral consultative process, available to Parties on their request for the resolution of questions regarding the implementation of the Convention.

ARTICLE 14

SETTLEMENT OF DISPUTES

1. In the event of a dispute between any two or more Parties concerning the interpretation or application of the Convention, the Parties concerned shall seek a settlement of the dispute through negotiation or any other peaceful means of their own choice.

2. When ratifying, accepting, approving or acceding to the Convention, or at any time thereafter, a Party which is not a regional economic integration organization may declare in a written instrument submitted to the Depositary that, in respect of any dispute concerning the interpretation or application of the Convention, it recognizes as compulsory ipso facto and without special agreement, in relation to any Party accepting the same obligation:

(a) Submission of the dispute to the International Court of Justice, and/or

(b) Arbitration in accordance with procedures to be adopted by the Conference of the Parties as soon as practicable, in an annex on arbitration.

A Party which is a regional economic integration organization may make a declaration with like effect in relation to arbitration in accordance with the Procedures referred to in subparagraph (b) above.

3. A declaration made under paragraph 2 above shall remain in force until it expires in accordance with its terms or until three months after written notice of its revocation has been deposited with the Depositary.

4. A new declaration, a notice of revocation or the expiry of a declaration shall not in any way affect proceedings pending before the International Court of Justice or the arbitral tribunal, unless the parties to the dispute otherwise agree.

5. Subject to the operation of paragraph 2 above, if after twelve months following notification by one Party to another that a dispute exists between them, the Parties concerned have not been able to settle their dispute through

the means mentioned in paragraph 1 above, the dispute shall be submitted, at the request of any of the parties to the dispute, to conciliation.

6. A conciliation commission shall be created upon the request of one of the parties to the dispute. The commission shall be composed of an equal number of members appointed by each party concerned and a chairman chosen jointly by the members appointed by each party. The commission shall render a recommendatory award, which the parties shall consider in good faith.

7. Additional procedures relating to conciliation shall be adopted by the Conference of the Parties, as soon as practicable, in an annex on conciliation.

8. The provisions of this Article shall apply to any related legal instrument which the Conference of the Parties may adopt, unless the instrument provides otherwise.

ARTICLE 15

AMENDMENTS TO THE CONVENTION

1. Any Party may propose amendments to the Convention.

2. Amendments to the Convention shall be adopted at an ordinary session of the Conference of the Parties. The text of any proposed amendment to the Convention shall be communicated to the Parties by the secretariat at least six months before the meeting at which it is proposed for adoption. The secretariat shall also communicate proposed amendments to the signatories to the Convention and, for information, to the Depositary.

3. The Parties shall make every effort to reach agreement on any proposed amendment to the Convention by consensus. If all efforts at consensus have been exhausted, and no agreement reached, the amendment shall as a last resort be adopted by a three-fourths majority vote of the Parties present and voting at the meeting. The adopted amendment shall be communicated by the secretariat to the Depositary, who shall circulate it to all Parties for their acceptance.

4. Instruments of acceptance in respect of an amendment shall be deposited with the Depositary. An amendment adopted in accordance with paragraph 3 above shall enter into force for those Parties having accepted it on the ninetieth day after the date of receipt by the Depositary of an instrument of acceptance by at least three-fourths of the Parties to the Convention.

5. The amendment shall enter into force for any other Party on the ninetieth day after the date on which that Party deposits with the Depositary its instrument of acceptance of the said amendment.

6. For the purposes of this Article, "Parties present and voting" means Parties present and casting an affirmative or negative vote.

ARTICLE 16

ADOPTION AND AMENDMENT OF ANNEXES TO THE CONVENTION

1. Annexes to the Convention shall form an integral part thereof and, unless otherwise expressly provided, a reference to the Convention constitutes at the same time a reference to any annexes thereto. Without prejudice to the provisions of Article 14, paragraphs 2(b) and 7, such annexes shall be restricted to lists, forms and any other material of a descriptive nature that is of a scientific, technical, procedural or administrative character.

2. Annexes to the Convention shall be proposed and adopted in accordance with the procedure set forth in Article 15, paragraphs 2, 3, and 4.

3. An annex that has been adopted in accordance with paragraph 2 above shall enter into force for all Parties to the Convention six months after the date of the communication by the Depositary to such Parties of the adoption of the annex, except for those Parties that have notified the Depositary, in writing, within that period of their non-acceptance of the annex. The annex shall enter into force for Parties which withdraw their notification of non-acceptance on the ninetieth day after the date on which withdrawal of such notification has been received by the Depositary.

4. The proposal, adoption and entry into force of amendments to annexes to the Convention shall be subject to the same procedure as that for the proposal, adoption and entry into force of annexes to the Convention in accordance with paragraphs 2 and 3 above.

5. If the adoption of an annex or an amendment to an annex involves an amendment to the Convention, that annex or amendment to an annex shall not enter into force until such time as the amendment to the Convention enters into force.

ARTICLE 17

PROTOCOLS

1. The Conference of the Parties may, at any ordinary session, adopt protocols to the Convention.

2. The text of any proposed protocol shall be communicated to the Parties by the secretariat at least six months before such a session.

3. The requirements for the entry into force of any protocol shall be established by that instrument.

4. Only Parties to the Convention may be Parties to a protocol.

5. Decisions under any protocol shall be taken only by the Parties to the protocol concerned.

ARTICLE 18

RIGHT TO VOTE

1. Each Party to the Convention shall have one vote, except as provided for in paragraph 2 below.

2. Regional economic integration organizations, in matters within their competence, shall exercise their right to vote with a number of votes equal to the number of their member States that are Parties to the Convention. Such an organization shall not exercise its right to vote if any of its member States exercises its right, and vice versa.

ARTICLE 19

DEPOSITARY

The Secretary-General of the United Nations shall be the Depositary of the Convention and of protocols adopted in accordance with Article 17.

ARTICLE 20

SIGNATURE

This Convention shall be open for signature by States Members of the United Nations or of any of its specialized agencies or that are Parties to the Statute of the International Court of Justice and by regional economic integration organizations at Rio de Janeiro, during the United Nations Conference on Environment and Development, and thereafter at United Nations Headquarters in New York from 20 June 1992 to 19 June 1993.

ARTICLE 21

INTERIM ARRANGEMENTS

1. The secretariat functions referred to in Article 8 will be carried out on an interim basis by the secretariat established by the General Assembly of the United Nations in its resolution 45/212 of 21 December 1990, until the completion of the first session of the Conference of the Parties.

2. The head of the interim secretariat referred to in paragraph 1 above will cooperate closely with the Intergovernmental Panel on Climate Change to ensure that the Panel can respond to the need for objective scientific and technical advice. Other relevant scientific bodies could also be consulted.

3. The Global Environment Facility of the United Nations Development Programme, the United Nations Environment Programme and the International Bank for Reconstruction and Development shall be the international entity entrusted with the operation of the financial mechanism referred to in Article 11 on an interim basis. In this connection, the Global Environment Facility should be appropriately restructured and its membership made universal to enable it to fulfil the requirements of Article 11.

ARTICLE 22

RATIFICATION, ACCEPTANCE, APPROVAL OR ACCESSION

1. The Convention shall be subject to ratification, acceptance, approval or accession by States and by regional economic integration organizations. It shall be open for accession from the day after the date on which the Convention is closed for signature. Instruments of ratification, acceptance, approval or accession shall be deposited with the Depositary.

2. Any regional economic integration organization which becomes a Party to the Convention without any of its member States being a Party shall be bound by all the obligations under the Convention. In the case of such organizations, one or more of whose member States is a Party to the Convention, the organization and its member States shall decide on their respective responsibilities for the performance of their obligations under the Convention. In such cases, the organization and the member States shall not be entitled to exercise rights under the Convention concurrently.

3. In their instruments of ratification, acceptance, approval or accession, regional economic integration organizations shall declare the extent of their competence with respect to the matters governed by the Convention. These organizations shall also inform the Depositary, who shall in turn inform the Parties, of any substantial modification in the extent of their competence.

ARTICLE 23

ENTRY INTO FORCE

1. The Convention shall enter into force on the ninetieth day after the date of deposit of the fiftieth instrument of ratification, acceptance, approval or accession.

2. For each State or regional economic integration organization that ratifies, accepts or approves the Convention or accedes thereto after the deposit of the fiftieth instrument of ratification, acceptance, approval or accession, the Convention shall enter into force on the ninetieth day after the date of deposit by such State or regional economic integration organization of its instrument of ratification, acceptance, approval or accession.

3. For the purposes of paragraphs 1 and 2 above, any instrument deposited by a regional economic integration organization shall not be counted as additional to those deposited by States members of the organization.

ARTICLE 24

RESERVATIONS

No reservations may be made to the Convention.

ARTICLE 25

WITHDRAWAL

1. At any time after three years from the date on which the Convention has entered into force for a Party, that Party may withdraw from the Convention by giving written notification to the Depositary.

2. Any such withdrawal shall take effect upon expiry of one year from the date of receipt by the Depositary of the notification of withdrawal, or on such later date as may be specified in the notification of withdrawal.

3. Any Party that withdraws from the Convention shall be considered as also having withdrawn from any protocol to which it is a Party.

ARTICLE 26

AUTHENTIC TEXTS

The original of this Convention, of which the Arabic, Chinese, English, French, Russian and Spanish texts are equally authentic, shall be deposited with the Secretary-General of the United Nations.

IN WITNESS WHEREOF the undersigned, being duly authorized to that effect, have signed this Convention.

DONE at New York this ninth day of May one thousand nine hundred and ninety-two.

ANNEX I

Australia

Austria

Belarus

Belgium

Bulgaria

Canada

Czechoslovakia

Denmark

European Community

Estonia

Finland

France

Germany

Greece

Hungary

Iceland

Ireland

Italy

Japan

Latvia

Lithuania

Luxembourg

Netherlands

New Zealand

Norway

Poland

Portugal

Romania

Russian Federation

Spain

Sweden

Switzerland

Turkey

Ukraine

United Kingdom of Great Britain and Northern Ireland

United States of America

ANNEX II

Australia

Austria

Belgium

Canada

Denmark

European Community

Finland

France

Germany

Greece

Iceland

Ireland

Italy

Japan

Luxembourg

Netherlands

New Zealand

Norway

Portugal

Spain

Sweden

Switzerland

Turkey

United Kingdom of Great Britain and Northern Ireland

United States of America

Agreement Establishing the Inter-American Institute for Global Change Research, Montevideo, 1992

Done at Montevideo 13 May 1992

Not in force

Depositary: Organization of American States

Primary source citation: Copy of text provided by the U.S. Department of State

AGREEMENT ESTABLISHING THE INTER-AMERICAN INSTITUTE FOR GLOBAL CHANGE RESEARCH

The Parties,

RECOGNIZING that the long-term chemical, biological, and physical processes and cycles of the Earth system are undergoing continuous alteration that is both natural in origin and human-induced, in what is known as global change;

CONCERNED that our scientific knowledge of the earth system and our common understanding of the environmental, economic and social effects on development caused by these changes is incomplete;

AWARE that global change may affect the resources vital to the condition of human beings and other species;

CONSIDERING that policy makers are in need of accurate information and sound analyses concerning the causes and the physical, social, economic and ecological impacts of global change;

CONCERNED that research on global issues requires cooperation among research institutes, among states and among the different parts of the Inter-American region, and with regional and international global change research programs;

CONVINCED that national and global efforts to address these issues must be supplemented by regional cooperation among States; and

RECALLING that, in order to encourage such regional cooperation, the establishment of an Inter-American Institute for Global Change Research was initiated by the scientific community of the Americas at the 1990 White House Conference on Science and Economics Research Related to Global Change;

HAVE AGREED as follows:

Article I
Establishment of the Institute

The Parties hereby establish the Inter-American Institute for Global Change Research, as a regional network of cooperating research entities, hereinafter referred to as the "Institute."

Article II
Objectives

The Institute shall pursue the principles of scientific excellence, international cooperation, and the full and open exchange of scientific information, relevant to global change. In order to do so, the objectives of the Institute are to:

a) Promote regional cooperation for interdisciplinary research on aspects of global change related to the sciences of the earth, ocean, atmosphere, and the environment and to social sciences, with particular attention to impacts on ecosystems and biodiversity, socio-economic impacts, and technologies and economic aspects associated with the mitigation of and adaptation to global change;

b) Conduct or select for sponsorship scientific programs and projects on the basis of their regional relevance and scientific merit as determined by scientific review;

c) Pursue on a regional scale that research which cannot be pursued by any individual State or institution and dedicate itself to scientific issues of regional importance;

d) Improve the scientific and technical capabilities and research infrastructure of the States of the region by identifying and promoting the development of facilities for the implementation of data management and by the scientific and technical training of professionals;

e) Foster standardization, collection, analysis and exchange of scientific data relevant to global change;

f) Improve public awareness and provide scientific information to governments for the development of public policy relevant to global change;

g) Promote cooperation among the different research institutions of the region; and

h) Promote cooperation with research institutions in other regions.

Article III
Scientific Agenda

In pursuit of the above objectives, the Institute shall have an evolving Scientific Agenda, reflecting an appropriate balance among biogeographical areas of scientific importance; an integration of scientific, economic and sociological research; and shall focus on such regional issues as the Conference of the Parties shall determine, in accordance with Articles V, VI, VII and VIII. The initial Scientific Agenda shall include:

a) The study of tropical ecosystems and biogeochemical cycles;

b) The study of impacts of climate change on biodiversity;

c) The study of El Niño Southern Oscillation and interannual climate variability;

d) The study of ocean/atmosphere/land interactions in the intertropical Americas;

e) Comparative studies of oceanic, coastal and estuarine processes in temperate zones;

f) Comparative studies of temperate terrestrial ecosystems; and

g) High latitude processes.

Article IV
Organs

The organs of the Institute are:

a) The Conference of the Parties;

b) The Executive Council;

c) The Scientific Advisory Committee; and

d) The Directorate.

Article V
The Conference of the Parties

1. The Conference of the Parties shall be the principal policy-making organ of the Institute.

2. Each Party shall be a member of the Conference of the Parties.

3. The Conference of the Parties shall meet at least once every year.

4. The Conference of the Parties shall:

a) consider and adopt measures to establish, review and update the policies and procedures of the Institute, as well as to evaluate its work and the accomplishment of its objectives;

b) review periodically and approve, on the basis of recommendations of the Scientific Advisory Committee, the Scientific Agenda of the Institute and to consider and approve its long-range plans and annual program and budget, taking into account:

i) The processes or issues that are unique to the region and their significance on a global scale;

ii) The research strengths within the region and how those strengths can be best utilized in order to contribute to the global effort to understand global change; and

iii) The need to integrate research on global issues through cooperation among research institutes, among States and among the different parts of the Inter-American region, and with regional and international global change research programs.

c) Consider and approve the financial policies, the annual budget and the financial records of the Institute submitted by the Director;

d) Elect the Members of the Executive Council and the members of the Scientific Advisory Committee, and the Director;

e) Consider and approve the Rules of Procedure of the Executive Council;

f) Decide on the venue for its annual ordinary and extraordinary meetings, which shall be rotated among the Parties;

g) Issue, through the Director, invitations to become Associates of the Institute, as provided in Article XI of this Agreement;

h) Authorize the Director to conclude with an accepting Associate an Agreement of Association;

i) Decide on the development and designation of Institute Research Centers and on their location, as provided in Article IX;

j) Make decisions regarding the location of the Directorate;

k) Establish ad hoc committees as necessary;

l) Approve amendments to this Agreement in accordance with Article XV, Section 3; and

m) Perform other functions as necessary to achieve the objectives of the Institute.

Article VI
The Executive Council

1. The Executive Council shall be the executive organ of the Institute.

2. The Executive Council shall be composed of up to nine members elected by the Conference of the Parties for two-year terms, taking into account the need for balanced geographic representation.

3. The Executive Council shall meet at least twice a year and shall strive to hold its meetings in different locations among the Parties.

4. The Executive Council shall:

a) Develop recommendations on the policies for the Institute, for submission to and approval by the Conference of the Parties;

b) Ensure that the Director implements the policies adopted by the Conference of the Parties;

c) Make recommendations to the Conference of the Parties regarding the long-range plans and annual program and budget;

d) Make recommendations to the Conference of the Parties regarding the financial policies of the Institute proposed by the Director;

e) Appoint an external auditor and review the annual external audit of the financial records submitted annually by the Director to the Conference of the Parties;

f) Make recommendations to the Conference of the Parties regarding amendments to the Rules of Procedure of the Executive Council;

g) Propose to the Conference of the Parties the designation of Institute Research Centers; and

h) Perform any other functions entrusted to it by the Conference of the Parties.

Article VII
The Scientific Advisory Committee

1. The Scientific Advisory Committee shall be the principal scientific advisory organ of the Institute.

2. The Scientific Advisory Committee shall be composed of ten members elected by the Conference of the Parties to serve in their personal capacity for three-year terms and with eligibility for a single additional term. The Conference of the Parties shall elect six Scientific Advisory Committee members from nominations received from the Parties; three from nominations received from the Scientific Advisory Committee itself; and one from nominations received from the Institute's Associates. These members shall be scientists recognized internationally for their expertise in areas relevant to the objectives of the Institute, ensuring broad subregional, regional, and worldwide representation, as well as representation from a variety of disciplines relevant to global change research.

3. The Scientific Advisory Committee shall meet as necessary and at least once a year.

4. The Scientific Advisory Committee shall:

a) Make recommendations to the Conference of the Parties regarding the Scientific Agenda, long-range plans and annual program of the Institute;

b) Direct the peer review system of the Institute, ensuring through its rules of procedure that individual Committee members do not participate in the evaluation of proposals which they have themselves submitted;

c) Adopt its own rules of procedure;

d) Establish scientific panels for particular issues;

e) Assess the scientific results obtained by the Institute; and

f) Perform any other functions entrusted to it by the Conference of the Parties.

Article VIII
The Directorate

1. The Directorate shall be the primary administrative organ of the Institute.

2. The Directorate shall be composed of a Director and staff.

3. The Director shall be the highest executive officer of the Institute.

4. The Director shall be elected by a two-thirds majority of the Conference of the Parties from nominations submitted by the Parties and for a three-year term with eligibility for a single additional term.

5. The Director shall:

a) Prepare and submit to the Conference of the Parties, through the Executive Council, the proposed long-range plan, the proposed financial policies and the annual program and budget of the Institute, including annually adjusted allocations to the Directorate and to the Institute Research Centers;

b) Implement the financial policies and the annual program and budget approved by the Conference of the Parties, maintaining detailed records of all revenue and expenditure of the Institute, and committing authorized resources for the purposes of managing the Institute;

c) Be responsible for the day-to-day operations of the program of the Institute and the implementation of the policies approved by the Conference of the Parties in accordance with the direction provided by the Executive Council, and to cooperate with the Executive Council in those regards;

d) Act as Secretariat to the Conference of the Parties, to the Executive Council and to the Scientific Advisory Committee and, as such, participate ex officio in meetings of the organs of the Institute;

e) Promote and represent the Institute;

f) Forward to the Conference of the Parties offers to host Institute Research Centers based on proposals submitted in accordance with Article IX;

g) Issue invitations of Association (i.e., to Associates of the Institute) approved by the Conference of the Parties, and to conclude with each accepting Associate an Agreement of Association;

h) Submit annually audited financial records to the Conference of the Parties, through the Executive Council; and

i) Perform any other functions entrusted to it by the Conference of the Parties or the Executive Council.

6. The Director shall not be a citizen or permanent resident of the Party hosting the Directorate.

Article IX
Institute Research Centers

1. Institute Research Centers shall be developed and designated by the Conference of the Parties only based upon proposals submitted by Parties interested in hosting such Centers in their own territory.

2. Each Institute Research Center must have a long-term commitment to a program of research within the objectives of the Institute for which the Center shall be responsible to the Institute. Each Research Center shall present its long-range plans and annual program and budget to the Conference of the Parties for its approval, based on advice from the Scientific Advisory Committee and the Institute's needs to integrate the plans and programs of all of the Centers.

3. The Institute Research Centers shall, inter alia:

a) Conduct and support in-house and extramural interdisciplinary global change research;

b) Collect data and promote the full, open and efficient exchange of data and information between the Institute and the Parties;

c) Strengthen capabilities and facilities of existing institutions;

d) Create regional capacity and provide advanced training in fields relevant to global change;

e) Participate ex-officio, through their respective Directors, in the meetings of the Conference of the Parties, the Executive Council and the Scientific Advisory Committee; and

f) Perform any other functions provided in this Agreement for the Institute Research Centers or entrusted to them by the Conference of the Parties.

4. When deciding on the development or designation of an Institute Research Center, the Conference of the Parties shall take into account:

a) The need to achieve broad coverage of all biogeographically defined subregions of the Inter-American region;

b) The need to consolidate a regional network of research components focussing on the different areas of the Scientific Agenda of the Institute;

c) The ease of access to the site for visiting scientists and technicians;

d) The availability of logistics support including, inter alia, mail, telecommunications and housing;

e) The demonstrable interest of scientists and governments in conducting global change research and in cooperating with other institutions;

f) The existence of a scientific institution or nucleus at the site actively engaged, in whole or in substantive part, in global change research;

g) The likelihood of long-term stability of interest and support for the research objectives of the Institute;

h) The ability to contribute resources to the overall Institute through, inter alia, areas of specialty, expertise and location;

i) The conditions offered by the proposing Parties regarding the open and efficient transfer of institute-related funds, of easy entry to and exit from the State for personnel and equipment which are properly accredited as being associated with the work of the Institute; and

j) The possibility of access to aggregate data bases and close proximity to more specialized research capabilities in subjects associated with global change and research training.

Article X
Affiliated Research Institutions

1. An institution which submits a proposal for a specific research project, through the appropriate Party, may be designated by the Conference of the Parties as being affiliated to the Institute for the duration of the project. The Conference shall base its decision on a review of the proposal, taking into account the views of the Scientific Advisory Committee as to the scientific merit of the proposed project and its relevance to the objectives of the Institute.

2. Affiliated research institutions shall be responsible to the Institute for the portion of its work sponsored by the Institute.

Article XI
Associates of the Institute

1. The Conference of the Parties shall invite States outside the region, regional or international intergovernmental organizations, and industries and other nongovernmental and private organizations interested in supporting the Scientific Agenda and programmatic activities of the Institute, to become Associates of the Institute.

2. Associates may participate as observers in the meetings of the Conference of the Parties.

3. Associates shall be entitled collectively to nominate one member of the Scientific Advisory Committee, on the basis of a procedure to be agreed among them.

4. Each Associate shall conclude with the Institute, through the Director, an Agreement of Association which shall specify the area or areas of the Scientific Agenda that will be supported by the Associate, and the modalities of such support.

Article XII
National Jurisdiction

Research undertaken, managed or sponsored by the Institute shall be conducted in accordance with the laws of the Parties in their respective areas of national jurisdiction and shall not be conducted against the wishes of a Party in its area of national jurisdiction.

Article XIII
Financial Provisions

1. A budget of operational expenses for the Institute, consisting of salaries for the Directorate and basic support for the Directorate, Scientific Advisory Committee, and Executive Council, shall be supported by voluntary contributions pledged annually for a three-year period by the Parties in accordance with the interests of the Parties. Such pledges shall be in increments of US $5,000. The adoption of the annual budget shall be by consensus of the Parties. The Parties recognize that regular contributions to the operational budget are essential to the success of the Institute and that such contributions shall take into account the research resources of the contributing parties.

2. Major research programs and specific projects, to be sponsored by the Institute, shall be supported from voluntary financial contributions pledged by the Parties and by the Associates of the Institute, or donated by other States outside the region, regional or international intergovernmental organizations, and industries and other nongovernmental and private organizations interested in supporting the Scientific Agenda and programmatic activities of the Institute.

3. The executive Council, with the assistance of the Director, will propose to the Conference of the Parties, for its approval, the establishment of an endowment fund which would generate income through an interest-bearing arrangement, as well as options to obtain resources through other means.

Article XIV
Privileges, Immunities and Other Provisions

1. A Party in which the Directorate is located shall accord privileges and immunities to the Director and non-national staff of the Directorate, consistent with those privileges and immunities customarily accorded to international governmental organizations, and as appropriate to allow the Director and staff to carry out their functions.

2. The Party in which the Directorate is located shall enter into an appropriate host agreement with the Institute to provide for these privileges and immunities, taking in account international law.

3. Each Party shall facilitate, to the maximum extent possible in accordance with its national laws and regulations, the entry into and exit from its territory of personnel properly accredited as being associated with the work of the Institute, as well as materials, and equipment related to activities conducted under this Agreement.

Article XV
Final Clauses

1. This Agreement shall be open for signature in Uruguay by independent States of the Inter-American region from the 13th of May, 1992 to the 12th of May, 1993. These States shall be known as Founding Parties. The Agreement shall then be open for accession with the Depository by other independent States of the Inter-American region.

2. This Agreement shall enter into force sixty days after the date on which six independent States of the Inter-American region have notified the Depository, through diplomatic channels, that they have completed their corresponding domestic legal requirements.

3. Amendments approved by a two-thirds vote in the Conference of the Parties, shall come into force sixty days after the date on which two-thirds of the Parties have notified the Depository, through diplomatic channels, that they have completed their corresponding domestic legal requirements.

4. Any Party may withdraw from this Agreement by providing written notification through diplomatic channels to the Depository, six months in advance of the effective date of withdrawal, without prejudice to its compliance with the pending obligations to the ongoing projects.

5. The General Secretariat of the Organization of American States shall be the Depository of this Agreement.

6. This Agreement shall be registered by the Depository with the General Secretariat of the United Nations.

Done in Montevideo, Uruguay on the 13th day of May, 1992, in four equally authentic original texts in the English, French, Portuguese and Spanish languages.

Convention on Biological Diversity, Rio de Janeiro, 1992

Done at Rio de Janeiro 5 June 1992

Not in force

Depositary: Secretary-General of the United Nations

Primary source citation: Copy of text provided by the United Nations Environment Program

CONVENTION ON BIOLOGICAL DIVERSITY

Preamble

The Contracting Parties,

Conscious of the intrinsic value of biological diversity and of the ecological, genetic, social, economic, scientific, educational, cultural, recreational and aesthetic values of biological diversity and its components,

Conscious also of the importance of biological diversity for evolution and for maintaining life sustaining systems of the biosphere,

Affirming that the conservation of biological diversity is a common concern of humankind,

Reaffirming that States have sovereign rights over their own biological resources,

Reaffirming also that States are responsible for conserving their biological diversity and for using their biological resources in a sustainable manner,

Concerned that biological diversity is being significantly reduced by certain human activities,

Aware of the general lack of information and knowledge regarding biological diversity and of the urgent need to develop scientific, technical and institutional capacities to provide the basic understanding upon which to plan and implement appropriate measures,

Noting that it is vital to anticipate, prevent and attack the causes of significant reduction or loss of biological diversity at source,

Noting also that where there is a threat of significant reduction or loss of biological diversity, lack of full scientific certainty should not be used as a reason for postponing measures to avoid or minimize such a threat,

Noting further that the fundamental requirement for the conservation of biological diversity is the *in-situ* conservation of ecosystems and natural habitats and the maintenance and recovery of viable populations of species in their natural surroundings,

Noting further that *ex-situ* measures, preferably in the country of origin, also have an important role to play,

Recognizing the close and traditional dependence of many indigenous and local communities embodying traditional lifestyles on biological resources, and the desirability of sharing equitably benefits arising from the use of traditional knowledge, innovations and practices relevant to the conservation of biological diversity and the sustainable use of its components,

Recognizing also the vital role that women play in the conservation and sustainable use of biological diversity and affirming the need for the full participation of women at all levels of policy-making and implementation for biological diversity conservation,

Stressing the importance of, and the need to promote, international, regional and global cooperation among States and intergovernmental organizations and the non-governmental sector for the conservation of biological diversity and the sustainable use of its components,

Acknowledging that the provision of new and additional financial resources and appropriate access to relevant technologies can be expected to make a substantial difference in the world's ability to address the loss of biological diversity,

Acknowledging further that special provision is required to meet the needs of developing countries, including the provision of new and additional financial resources and appropriate access to relevant technologies,

Noting in this regard the special conditions of the least developed countries and small island States,

Acknowledging that substantial investments are required to conserve biological diversity and that there is the expectation of a broad range of environmental, economic and social benefits from those investments,

Recognizing that economic and social development and poverty eradication are the first and overriding priorities of developing countries,

Aware that conservation and sustainable use of biological diversity is of critical importance for meeting the food, health and other needs of the growing world population, for which purpose access to and sharing of both genetic resources and technologies are essential,

Noting that, ultimately, the conservation and sustainable use of biological diversity will strengthen friendly relations among States and contribute to peace for humankind,

Desiring to enhance and complement existing international arrangements for the conservation of biological diversity and sustainable use of its components, and

Determined to conserve and sustainably use biological diversity for the benefit of present and future generations,

Have agreed as follows:

Article 1. Objectives

The objectives of this Convention, to be pursued in accordance with its relevant provisions, are the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding.

Article 2. Use of Terms

For the purposes of this Convention:

"*Biological diversity*" means the variability among living organisms from all sources including, *inter alia*, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.

"*Biological resources*" includes genetic resources, organisms or parts thereof, populations, or any other biotic component of ecosystems with actual or potential use or value for humanity.

"*Biotechnology*" means any technological application that uses biological systems living organisms, or derivatives thereof, to make or modify products or processes for specific use.

"*Country of origin of genetic resources*" means the country which possesses those genetic resources in *in-situ* conditions.

"*Country providing genetic resources*" means the country supplying genetic resources collected from *in-situ* sources, including populations of both wild and domesticated species, or taken from *ex-situ* sources, which may or may not have originated in that country.

"*Domesticated or cultivated species*" means species in which the evolutionary process has been influenced by humans to meet their needs.

"*Ecosystem*" means a dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit.

"*Ex-situ conservation*" means the conservation of components of biological diversity outside their natural habitats.

"*Genetic material*" means any material of plant, animal, microbial or other origin containing functional units of heredity.

"*Genetic resources*" means genetic material of actual or potential value.

"*Habitat*" means the place or type of site where an organism or population naturally occurs.

"*In-situ conditions*" means conditions where genetic resources exist within ecosystems and natural habitats, and, in the case of domesticated or cultivated species, in the surroundings where they have developed their distinctive properties.

"*In-situ conservation*" means the conservation of ecosystems and natural habitats and the maintenance and recovery of viable populations of species in their natural surroundings and, in the case of domesticated or cultivated species, in the surroundings where they have developed their distinctive properties.

"*Protected area*" means a geographically defined area which is designated or regulated and managed to achieve specific conservation objectives.

"*Regional economic integration organization*" means an organization constituted by sovereign States of a given region, to which its member States have transferred competence in respect of matters governed by this Convention and which has been duly authorized, in accordance with its internal procedures, to sign, ratify, accept, approve or accede to it.

"*Sustainable use*" means the use of components of biological diversity in a way and at a rate that does not lead to the long-term decline of biological diversity, thereby maintaining its potential to meet the needs and aspirations of present and future generations.

"*Technology*" includes biotechnology.

Article 3. Principle

States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.

Article 4. Jurisdictional Scope

Subject to the rights of other States, and except as otherwise expressly provided in this Convention, the provisions of this Convention apply, in relation to each Contracting Party:

(a) In the case of components of biological diversity, in areas within the limits of its national jurisdiction; and

(b) In the case of processes and activities, regardless of where their effects occur, carried out under its jurisdiction or control, within the area of its national jurisdiction or beyond the limits of national jurisdiction.

Article 5. Cooperation

Each Contracting Party shall, as far as possible and as appropriate, cooperate with other Contracting Parties, directly or, where appropriate, through competent international organizations, in respect of areas beyond national jurisdiction and on other matters of mutual interest, for the conservation and sustainable use of biological diversity.

Article 6. General Measures for Conservation and Sustainable Use

Each Contracting Party shall, in accordance with its particular conditions and capabilities:

(a) Develop national strategies, plans or programmes for the conservation and sustainable use of biological diversity or adapt for this purpose existing strategies, plans or programmes which shall reflect, *inter alia,* the measures set out in this Convention relevant to the Contracting Party concerned; and

(b) Integrate, as far as possible and as appropriate, the conservation and sustainable use of biological diversity into relevant sectoral or cross-sectoral plans, programmes and policies.

Article 7. Identification and Monitoring

Each Contracting Party shall, as far as possible and as appropriate, in particular for the purposes of Articles 8 to 10:

(a) Identify components of biological diversity important for its conservation and sustainable use having regard to the indicative list of categories set down in Annex I;

(b) Monitor, through sampling and other techniques, the components of biological diversity identified pursuant to subparagraph (a) above, paying particular attention to those requiring urgent conservation measures and those which offer the greatest potential for sustainable use;

(c) Identify processes and categories of activities which have or are likely to have significant adverse impacts on the conservation and sustainable use of biological diversity, and monitor their effects through sampling and other techniques; and

(d) Maintain and organize, by any mechanism data, derived from identification and monitoring activities pursuant to subparagraphs (a), (b) and (c) above.

Article 8. In-situ Conservation

Each Contracting Party shall, as far as possible and as appropriate:

(a) Establish a system of protected areas or areas where special measures need to be taken to conserve biological diversity;

(b) Develop, where necessary, guidelines for the selection, establishment and management of protected areas or areas where special measures need to be taken to conserve biological diversity;

(c) Regulate or manage biological resources important for the conservation of biological diversity whether within or outside protected areas, with a view to ensuring their conservation and sustainable use;

(d) Promote the protection of ecosystems, natural habitats and the maintenance of viable populations of species in natural surroundings;

(e) Promote environmentally sound and sustainable development in areas adjacent to protected areas with a view to furthering protection of these areas;

(f) Rehabilitate and restore degraded ecosystems and promote the recovery of threatened species, *inter alia*, through the development and implementation of plans or other management strategies;

(g) Establish or maintain means to regulate, manage or control the risks associated with the use and release of living modified organisms resulting from biotechnology which are likely to have adverse environmental impacts that could affect the conservation and sustainable use of biological diversity, taking also into account the risks to human health;

(h) Prevent the introduction of, control or eradicate those alien species which threaten ecosystems, habitats or species;

(i) Endeavour to provide the conditions needed for compatibility between present uses and the conservation of biological diversity and the sustainable use of its components;

(j) Subject to its national legislation, respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices;

(k) Develop or maintain necessary legislation and/or other regulatory provisions for the protection of threatened species and populations,;

(l) Where a significant adverse effect on biological diversity has been determined pursuant to Article 7, regulate or manage the relevant processes and categories of activities; and

(m) Cooperate in providing financial and other support for *in-situ* conservation outlined in subparagraphs (a) to (l) above, particularly to developing countries.

Article 9. Ex-situ Conservation

Each Contracting Party shall, as far as possible and as appropriate, and predominantly for the purpose of complementing *in-situ* measures:

(a) Adopt measures for the *ex-situ* conservation of components of biological diversity, preferably in the country of origin of such components;

(b) Establish and maintain facilities for *ex-situ* conservation of and research on plants, animals and micro-organisms, preferably in the country of origin of genetic resources;

(c) Adopt measures for the recovery and rehabilitation of threatened species and for their reintroduction into their natural habitats under appropriate conditions;

(d) Regulate and manage collection of biological resources from natural habitats for *ex-situ* conservation purposes so as not to threaten ecosystems and *in-situ* populations of species, except where special temporary *ex-situ* measures are required under subparagraph (c) above; and

(e) Cooperate in providing financial and other support for *ex-situ* conservation outlined in subparagraphs (a) to (d) above and in the establishment and maintenance of *ex-situ* conservation facilities in developing countries.

Article 10. Sustainable Use of Components of Biological Diversity

Each Contracting Party shall, as far as possible and as appropriate:

(a) Integrate consideration of the conservation and sustainable use of biological resources into national decision-making;

(b) Adopt measures relating to the use of biological resources to avoid or minimize adverse impacts on biological diversity;

(c) Protect and encourage customary use of biological resources in accordance with traditional cultural practices that are compatible with conservation or sustainable use requirements;

(d) Support local populations to develop and implement remedial action in degraded areas where biological diversity has been reduced; and

(e) Encourage cooperation between its governmental authorities and its private sector in developing methods for sustainable use of biological resources.

Article 11. Incentive Measures

Each Contracting Party shall, as far as possible and as appropriate, adopt economically and socially sound measures that act as incentives for the conservation and sustainable use of components of biological diversity.

Article 12. Research and Training

The Contracting Parties, taking into account the special needs of developing countries, shall:

(a) Establish and maintain programmes for scientific and technical education and training in measures for the identification, conservation and sustainable use of biological diversity and its components and provide support for such education and training for the specific needs of developing countries;

(b) Promote and encourage research which contributes to the conservation and sustainable use of biological diversity, particularly in developing countries, *inter alia*, in accordance with decisions of the Conference of the Parties taken in consequence of recommendations of the Subsidiary Body on Scientific, Technical and Technological Advice; and

(c) In keeping with the provisions of Articles 16, 18 and 20, promote and cooperate in the use of scientific advances in biological diversity research in developing methods for conservation and sustainable use of biological resources.

Article 13. Public Education and Awareness

The Contracting Parties shall:

(a) Promote and encourage understanding of the importance of, and the measures required for, the conservation of biological diversity, as well as its propagation through media, and the inclusion of these topics in educational programmes; and

(b) Cooperate, as appropriate, with other States and international organizations in developing educational and public awareness programmes, with respect to conservation and sustainable use of biological diversity.

Article 14. Impact Assessment and Minimizing Adverse Impacts

1. Each Contracting Party, as far as possible and as appropriate, shall:

(a) Introduce appropriate procedures requiring environmental impact assessment of its proposed projects that are likely to have significant adverse effects on biological diversity with a view to avoiding or minimizing such effects and, where appropriate, allow for public participation in such procedures;

(b) Introduce appropriate arrangements to ensure that the environmental consequences of its programmes and policies that are likely to have significant adverse impacts on biological diversity are duly taken into account;

(c) Promote, on the basis of reciprocity, notification, exchange of information and consultation on activities under their jurisdiction or control which are likely to significantly affect adversely the biological diversity of other States or areas beyond the limits of national jurisdiction, by encouraging the conclusion of bilateral, regional or multilateral arrangements, as appropriate;

(d) In the case of imminent or grave danger or damage, originating under its jurisdiction or control, to biological diversity within the area under jurisdiction of other States or in areas beyond the limits of national jurisdiction, notify immediately the potentially affected States of such danger or damage, as well as initiate action to prevent or minimize such danger or damage; and

(e) Promote national arrangements for emergency responses to activities or events, whether caused naturally or otherwise, which present a grave and imminent danger to biological diversity and encourage international cooperation to supplement such national efforts and, where appropriate and agreed by the States or regional economic integration organizations concerned, to establish joint contingency plans.

2. The Conference of the Parties shall examine, on the basis of studies to be carried out, the issue of liability and redress, including restoration and compensation, for damage to biological diversity, except where such liability is a purely internal matter.

Article 15. Access to Genetic Resources

1. Recognizing the sovereign rights of States over their natural resources, the authority to determine access to genetic resources rests with the national governments and is subject to national legislation.

2. Each Contracting Party shall endeavour to create conditions to facilitate access to genetic resources for environmentally sound uses by other Contracting Parties and not to impose restrictions that run counter to the objectives of this Convention.

3. For the purpose of this Convention, the genetic resources being provided by a Contracting Party, as referred to in this Article and Articles 16 and 19, are only those that are provided by Contracting Parties that are countries of origin of such resources or by the Parties that have acquired the genetic resources in accordance with this Convention.

4. Access, where granted, shall be on mutually agreed terms and subject to the provisions of this Article.

5. Access to genetic resources shall be subject to prior informed consent of the Contracting Party providing such resources, unless otherwise determined by that Party.

6. Each Contracting Party shall endeavour to develop and carry out scientific research based on genetic resources provided by other Contracting Parties with the full participation of, and where possible in, such Contracting Parties.

7. Each Contracting Party shall take legislative, administrative or policy measures, as appropriate, and in accordance with Articles 16 and 19 and, where necessary, through the financial mechanism established by Articles 20 and 21 with the aim of sharing in a fair and equitable way the results of research and development and the benefits arising from the commercial and other utilization of genetic resources with the Contracting Party providing such resources. Such sharing shall be upon mutually agreed terms.

Article 16. Access to and Transfer of Technology

1. Each Contracting Party, recognizing that technology includes biotechnology, and that both access to and transfer of technology among Contracting Parties are essential elements for the attainment of the objectives of this Convention, undertakes subject to the provisions of this Article to provide and/or facilitate access for and transfer to other Contracting Parties of technologies that are relevant to the conservation and sustainable use of biological diversity or make use of genetic resources and do not cause significant damage to the environment.

2. Access to and transfer of technology referred to in paragraph 1 above to developing countries shall be provided and/or facilitated under fair and most favourable terms, including on concessional and preferential terms where mutually agreed, and, where necessary, in accordance with the financial mechanism established by Articles 20 and 21. In the case of technology subject to patents and other intellectual property rights, such access and transfer shall be provided on terms which recognize and are consistent with the adequate and effective protection of intellectual property rights. The application of this paragraph shall be consistent with paragraphs 3, 4 and 5 below.

3. Each Contracting Party shall take legislative, administrative or policy measures, as appropriate, with the aim that Contracting Parties, in particular those that are developing countries, which provide genetic resources are provided access to and transfer of technology which makes use of those resources, on mutually agreed terms, including technology protected by patents and other intellectual property rights, where necessary, through the provisions of Articles 20 and 21 and in accordance with international law and consistent with paragraphs 4 and 5 below.

4. Each Contracting Party shall take legislative, administrative or policy measures, as appropriate, with the aim that the private sector facilitates access to, joint development and transfer of technology referred to in paragraph 1 above for the benefit of both governmental institutions and the private sector of developing countries and in this regard shall abide by the obligations included in paragraphs 1, 2 and 3 above.

5. The Contracting Parties, recognizing that patents and other intellectual property rights may have an influence on the implementation of this Convention, shall cooperate in this regard subject to national legislation and international law in order to ensure that such rights are supportive of and do not run counter to its objectives.

Article 17. Exchange of Information

1. The Contracting Parties shall facilitate the exchange of information, from all publicly available sources, relevant to the conservation and sustainable use of biological diversity, taking into account the special needs of developing countries.

2. Such exchange of information shall include exchange of results of technical, scientific and socio-economic research, as well as information on training and surveying programmes, specialized knowledge, indigenous and traditional knowledge as such and in combination with the technologies referred to in Article 16, paragraph 1. It shall also, where feasible, include repatriation of information.

Article 18. Technical and Scientific Cooperation

1. The Contracting Parties shall promote international technical and scientific cooperation in the field of conservation and sustainable use of biological diversity, where necessary, through the appropriate international and national institutions.

2. Each Contracting Party shall promote technical and scientific cooperation with other Contracting Parties, in particular developing countries, in implementing this Convention, *inter alia*, through the development and implementation of national policies. In promoting such cooperation, special attention should be given to the development and strengthening of national capabilities, by means of human resources development and institution building.

3. The Conference of the Parties, at its first meeting, shall determine how to establish a clearing-house mechanism to promote and facilitate technical and scientific cooperation.

4. The Contracting Parties shall, in accordance with national legislation and policies, encourage and develop methods of cooperation for the development and use of technologies, including indigenous and traditional technologies, in pursuance of the objectives of this Convention. For this purpose, the Contracting Parties shall also promote cooperation in the training of personnel and exchange of experts.

5. The Contracting Parties shall, subject to mutual agreement, promote the establishment of joint research programmes and joint ventures for the development of technologies relevant to the objectives of this Convention.

Article 19. Handling of Biotechnology and Distribution of its Benefits

1. Each Contracting Party shall take legislative, administrative or policy measures, as appropriate, to provide for the effective participation in biotechnological research activities by those Contracting Parties, especially developing countries, which provide the genetic resources for such research, and where feasible in such Contracting Parties.

2. Each Contracting Party shall take all practicable measures to promote and advance priority access on a fair and equitable basis by Contracting Parties, especially developing countries, to the results and benefits arising from biotechnologies based upon genetic resources provided by those Contracting Parties. Such access shall be on mutually agreed terms.

3. The Parties shall consider the need for and modalities of a protocol setting out appropriate procedures, including, in particular, advance informed agreement, in the field of the safe transfer, handling and use of any living modified organism resulting from biotechnology that may have adverse effect on the conservation and sustainable use of biological diversity.

4. Each Contracting Party shall, directly or by requiring any natural or legal person under its jurisdiction providing the organisms referred to in paragraph 3 above, provide any available information about the use and safety regulations required by that Contracting Party in handling such organisms, as well as any available information on the potential adverse impact of the specific organisms concerned to the Contracting Party into which those organisms are to be introduced.

Article 20. Financial Resources

1. Each Contracting Party undertakes to provide, in accordance with its capabilities, financial support and incentives in respect of those national activities which are intended to achieve the objectives of this Convention, in accordance with its national plans, priorities and programmes.

2. The developed country Parties shall provide new and additional financial resources to enable developing country Parties to meet the agreed full incremental costs to them of implementing measures which fulfil the obligations of this Convention and to benefit from its provisions and which costs are agreed between a developing country Party and the institutional structure referred to in Article 21, in accordance with policy, strategy, programme priorities and eligibility criteria and an indicative list of incremental costs established by the Conference of the Parties. Other Parties, including countries undergoing the process of transition to a market economy, may voluntarily assume the obligations of the developed country Parties. For the purpose of this Article, the Conference of the Parties, shall at its first meeting establish a list of developed country Parties and other Parties which voluntarily assume the obligations of the developed country Parties. The Conference of the Parties shall periodically review and if necessary amend the list. Contributions from other countries and sources on a voluntary basis would also be encouraged. The implementation of these commitments shall take into account the need for adequacy, predictability and timely flow of funds and the importance of burden-sharing among the contributing Parties included in the list.

3. The developed country Parties may also provide, and developing country Parties avail themselves of, financial resources related to the implementation of this Convention through bilateral, regional and other multilateral channels.

4. The extent to which developing country Parties will effectively implement their commitments under this Convention will depend on the effective implementation by developed country Parties of their commitments under this Convention related to financial resources and transfer of technology and will take fully into account the fact that economic and social development and eradication of poverty are the first and overriding priorities of the developing country Parties.

5. The Parties shall take full account of the specific needs and special situation of least developed countries in their actions with regard to funding and transfer of technology.

6. The Contracting Parties shall also take into consideration the special conditions resulting from the dependence on, distribution and location of, biological diversity within developing country Parties, in particular small island States.

7. Consideration shall also be given to the special situation of developing countries, including those that are most environmentally vulnerable, such as those with arid and semi-arid zones, coastal and mountainous areas.

Article 21. Financial Mechanism

1. There shall be a mechanism for the provision of financial resources to developing country Parties for purposes of this Convention on a grant or concessional basis the essential elements of which are described in this Article. The mechanism shall function under the authority and guidance of, and be accountable to, the Conference of the Parties for purposes of this Convention. The operations of the mechanism shall be carried out by such institutional structure as may be decided upon by the Conference of the Parties at its first meeting. For purposes of this Convention, the Conference of the Parties shall determine the policy, strategy, programme priorities and eligibility criteria relating to the access to and utilization of such resources. The contributions shall be such as to take into account the need for predictability, adequacy and timely flow of funds referred to in Article 20 in accordance with the amount of resources needed to be decided periodically by the Conference of the Parties and the importance of burden-sharing among the contributing Parties included in the list referred to in Article 20, paragraph 2. Voluntary contributions may also be made by the developed country Parties and by other countries and sources. The mechanism shall operate within a democratic and transparent system of governance.

2. Pursuant to the objectives of this Convention, the Conference of the Parties shall at its first meeting determine the policy, strategy and programme priorities, as well as detailed criteria and guidelines for eligibility for access to and utilization of the financial resources including monitoring and evaluation on a regular basis of such utilization. The Conference of the Parties shall decide on the arrangements to give effect to paragraph 1 above after consultation with the institutional structure entrusted with the operation of the financial mechanism.

3. The Conference of the Parties shall review the effectiveness of the mechanism established under this Article, including the criteria and guidelines referred to in paragraph 2 above, not less than two years after the entry into

force of this Convention and thereafter on a regular basis. Based on such review, it shall take appropriate action to improve the effectiveness of the mechanism if necessary.

4. The Contracting Parties shall consider strengthening existing financial institutions to provide financial resources for the conservation and sustainable use of biological diversity.

Article 22. Relationship with Other International Conventions

1. The provisions of this Convention shall not affect the rights and obligations of any Contracting Party deriving from any existing international agreement, except where the exercise of those rights and obligations would cause a serious damage or threat to biological diversity.

2. Contracting parties shall implement this Convention with respect to the marine environment consistently with the rights and obligations of States under the law of the sea.

Article 23. Conference of the Parties

1. A Conference of the Parties is hereby established. The first meeting of the Conference of the Parties shall be convened by the Executive Director of the United Nations Environment Programme not later than one year after the entry into force of this Convention. Thereafter, ordinary meetings of the Conference of the Parties shall be held at regular intervals to be determined by the conference at its first meeting.

2. Extraordinary meetings of the Conference of the Parties shall be held at such other times as may be deemed necessary by the Conference, or at the written request of any Party, provided that, within six months of the request being communicated to them by the Secretariat, it is supported by at least one third of the Parties.

3. The Conference of the Parties shall by consensus agree upon and adopt rules of procedure for itself and for any subsidiary body it may establish, as well as financial rules governing the funding of the Secretariat. At each ordinary meeting, it shall adopt a budget for the financial period until the next ordinary meeting.

4. The Conference of the Parties shall keep under review the implementation of this Convention, and, for this purpose, shall:

(a) Establish the form and the intervals for transmitting the information to be submitted in accordance with Article 26 and consider such information as well as reports submitted by any subsidiary body;

(b) Review scientific, technical and technological advice on biological diversity provided in accordance with Article 25;

(c) Consider and adopt, as required, protocols in accordance with Article 28;

(d) Consider and adopt, as required, in accordance with Articles 29 and 30, amendments to this Convention and its annexes;

(e) Consider amendments to any protocol, as well as to any annexes thereto, and, if so decided, recommend their adoption to the parties to the protocol concerned;

(f) Consider and adopt, as required, in accordance with Article 30, additional annexes to this Convention;

(g) Establish such subsidiary bodies, particularly to provide scientific and technical advice, as are deemed necessary for the implementation of this Convention;

(h) Contact, through the Secretariat, the executive bodies of conventions dealing with matters covered by this Convention with a view to establishing appropriate forms of cooperation with them; and

(i) Consider and undertake any additional action that may be required for the achievement of the purposes of this Convention in the light of experience gained in its operation.

5. The United Nations, its specialized agencies and the International Atomic Energy Agency, as well as any State not Party to this Convention, may be represented as observers at meetings of the Conference of the Parties. Any other body or agency, whether governmental or nongovernmental, qualified in fields relating to conservation and sustainable use of biological diversity, which has informed the Secretariat of its wish to be represented as an observer at a meeting of the Conference of the Parties, may be admitted unless at least one third of the Parties present object. The admission and participation of observers shall be subject to the rules of procedure adopted by the Conference of the Parties.

Article 24. Secretariat

1. A secretariat is hereby established. Its functions shall be:

(a) To arrange for and service meetings of the Conference of the Parties provided for in Article 23;

(b) To perform the functions assigned to it by any protocol;

(c) To prepare reports on the execution of its functions under this Convention and present them to the Conference of the Parties;

(d) To coordinate with other relevant international bodies and, in particular to enter into such administrative and contractual arrangements as may be required for the effective discharge of its functions; and

(e) To perform such other functions as may be determined by the Conference of the Parties.

2. At its first ordinary meeting, the Conference of the Parties shall designate the secretariat from amongst those existing competent international organizations which have signified their willingness to carry out the secretariat functions under this Convention.

Article 25. Subsidiary Body on Scientific, Technical and Technological Advice

1. A subsidiary body for the provision of scientific, technical and technological advice is hereby established to provide the Conference of the Parties and, as appropriate, its other subsidiary bodies with timely advice relating to the implementation of this Convention. This body shall be open to participation by all Parties and shall be multidisciplinary. It shall comprise government representatives competent in the relevant field of expertise. It shall report regularly to the Conference of the Parties on all aspects of its work.

2. Under the authority of and in accordance with guidelines laid down by the Conference of the Parties, and upon its request, this body shall:

(a) Provide scientific and technical assessments of the status of biological diversity;

(b) Prepare scientific and technical assessments of the effects of types of measures taken in accordance with the provisions of this Convention;

(c) Identify innovative, efficient and state-of-the-art technologies and know-how relating to the conservation and sustainable use of biological diversity and advise on the ways and means of promoting development and/or transferring such technologies;

(d) Provide advice on scientific programmes and international cooperation in research and development related to conservation and sustainable use of biological diversity; and

(e) Respond to scientific, technical, technological and methodological questions that the Conference of the Parties and its subsidiary bodies may put to the body.

3. The functions, terms of reference, organization and operation of this body may be further elaborated by the Conference of the Parties.

Article 26. Reports

Each Contracting Party shall, at intervals to be determined by the Conference of the Parties, present to the Conference of the Parties, reports on measures which it has taken for the implementation of the provisions of this Convention and their effectiveness in meeting the objectives of this Convention.

Article 27. Settlement of Disputes

1. In the event of a dispute between Contracting Parties concerning the interpretation or application of this Convention, the parties concerned shall seek solution by negotiation.

2. If the parties concerned cannot reach agreement by negotiation, they may jointly seek the good offices of, or request mediation by, a third party.

3. When ratifying, accepting, approving or acceding to this Convention, or at any time thereafter, a State or regional economic integration organization may declare in writing to the Depositary that for a dispute not resolved in accordance with paragraph 1 or paragraph 2 above, it accepts one or both of the following means of dispute settlement as compulsory:

(a) Arbitration in accordance with the procedure laid down in Part 1 of Annex II;

(b) Submission of the dispute to the International Court of Justice.

4. If the parties to the dispute have not, in accordance with paragraph 3 above, accepted the same or any procedure, the dispute shall be submitted to conciliation in accordance with Part 2 of Annex II unless the parties otherwise agree.

5. The provisions of this Article shall apply with respect to any protocol except as otherwise provided in the protocol concerned.

Article 28. Adoption of Protocols

1. The Contracting Parties shall cooperate in the formulation and adoption of protocols to this Convention.

2. Protocols shall be adopted at a meeting of the Conference of the Parties.

3. The text of any proposed protocol shall be communicated to the Contracting Parties by the Secretariat at least six months before such a meeting.

Article 29. Amendment of the Convention or Protocols

1. Amendments to this Convention may be proposed by any Contracting Party. Amendments to any protocol may be proposed by any Party to that protocol.

2. Amendments to this Convention shall be adopted at a meeting of the Conference of the Parties. Amendments to any protocol shall be adopted at a meeting of the Parties to the Protocol in question. The text of any proposed

amendment to this Convention or to any protocol, except as may otherwise be provided in such protocol, shall be communicated to the Parties to the instrument in question by the secretariat at least six months before the meeting at which it is proposed for adoption. The secretariat shall also communicate proposed amendments to the signatories to this Convention for information.

3. The Parties shall make every effort to reach agreement on any proposed amendment to this Convention or to any protocol by consensus. If all efforts at consensus have been exhausted, and no agreement reached, the amendment shall as a last resort be adopted by a two-third majority vote of the Parties to the instrument in question present and voting at the meeting, and shall be submitted by the Depositary to all Parties for ratification, acceptance or approval.

4. Ratification, acceptance or approval of amendments shall be notified to the Depositary in writing. Amendments adopted in accordance with paragraph 3 above shall enter into force among Parties having accepted them on the ninetieth day after the deposit of instruments of ratification, acceptance or approval by at least two thirds of the Contracting Parties to this Convention or of the Parties to the protocol concerned, except as may otherwise be provided in such protocol. Thereafter the amendments shall enter into force for any other Party on the ninetieth day after that Party deposits its instrument of ratification, acceptance or approval of the amendments.

5. For the purposes of this Article, "Parties present and voting" means Parties present and casting an affirmative or negative vote.

Article 30. Adoption and Amendment of Annexes

1. The annexes to this Convention or to any protocol shall form an integral part of the Convention or of such protocol, as the case may be, and, unless expressly provided otherwise, a reference to this Convention or its protocols constitutes at the same time a reference to any annexes thereto. Such annexes shall be restricted to procedural, scientific, technical and administrative matters.

2. Except as may be otherwise provided in any protocol with respect to its annexes, the following procedure shall apply to the proposal, adoption and entry into force of additional annexes to this Convention or of annexes to any protocol:

(a) Annexes to this Convention or to any protocol shall be proposed and adopted according to the procedure laid down in Article 29;

(b) Any Party that is unable to approve an additional annex to this Convention or an annex to any protocol to which it is Party shall so notify the Depositary, in writing, within one year from the date of the communication of the adoption by the Depositary. The Depositary shall without delay notify all Parties of any such notification received. A Party may at any time withdraw a previous declaration of objection and the annexes shall thereupon enter into force for that Party subject to subparagraph (c) below;

(c) On the expiry of one year from the date of the communication of the adoption by the Depositary, the annex shall enter into force for all Parties to this Convention or to any protocol concerned which have not submitted a notification in accordance with the provisions of subparagraph (b) above.

3. The proposal, adoption and entry into force of amendments to annexes to this Convention or to any protocol shall be subject to the same procedure as for the proposal, adoption and entry into force of annexes to the Convention or annexes to any protocol.

4. If an additional annex or an amendment to an annex is related to an amendment to this Convention or to any protocol, the additional annex or amendment shall not enter into force until such time as the amendment to the Convention or to the protocol concerned enters into force.

Article 31. Right to Vote

1. Except as provided for in paragraph 2 below, each Contracting Party to this Convention or to any protocol shall have one vote.

2. Regional economic integration organizations, in matters within their competence, shall exercise their right to vote with a number of votes equal to the number of their member States which are Contracting Parties to this Convention or the relevant protocol. Such organizations shall not exercise their right to vote if their member States exercise theirs, and vice versa.

Article 32. Relationship between this Convention and Its Protocols

1. A State or a regional economic integration organization may not become a Party to a protocol unless it is, or becomes at the same time, a Contracting Party to this Convention.

2. Decisions under any protocol shall be taken only by the Parties to the protocol concerned. Any Contracting Party that has not ratified, accepted or approved a protocol may participate as an observer in any meeting of the parties to that protocol.

Article 33. Signature

This Convention shall be open for signature at Rio de Janeiro by all States and any regional economic integration organization from 5 June 1992 until 14 June 1992, and at the United Nations Headquarters in New York from 15 June 1992 to 4 June 1993.

Article 34. Ratification, Acceptance or Approval

1. This Convention and any protocol shall be subject to ratification, acceptance or approval by States and by regional economic integration organizations. Instruments of ratification, acceptance or approval shall be deposited with the Depositary.

2. Any organization referred to in paragraph 1 above which becomes a Contracting Party to this Convention or any protocol without any of its member States being a Contracting Party shall be bound by all the obligations under the Convention or the protocol, as the case may be. In the case of such organizations, one or more of whose member States is a Contracting Party to this Convention or relevant protocol, the organization and its member States shall decide on their respective responsibilities for the performance of their obligations under the Convention or protocol, as the case may be. In such cases, the organization and the member States shall not be entitled to exercise rights under the Convention or relevant protocol concurrently.

3. In their instruments of ratification, acceptance or approval, the organizations referred to in paragraph 1 above shall declare the extent of their competence with respect to the matters governed by the Convention or the relevant protocol. These organizations shall also inform the Depositary of any relevant modification in the extent of their competence.

Article 35. Accession

1. This Convention and any protocol shall be open for accession by States and by regional economic integration organizations from the date on which the Convention or the protocol concerned is closed for signature. The instruments of accession shall be deposited with the Depositary.

2. In their instruments of accession, the organizations referred to in paragraph 1 above shall declare the extent of their competence with respect to the matters governed by the Convention or the relevant protocol. These organizations shall also inform the Depositary of any relevant modification in the extent of their competence.

3. The provisions of Article 34, paragraph 2, shall apply to regional economic integration organizations which accede to this Convention or any protocol.

Article 36. Entry Into Force

1. This Convention shall enter into force on the ninetieth day after the date of deposit of the thirtieth instrument of ratification, acceptance, approval or accession.

2. Any protocol shall enter into force on the ninetieth day after the date of deposit of the number of instruments of ratification, acceptance, approval or accession, specified in that protocol, has been deposited.

3. For each Contracting Party which ratifies, accepts or approves this Convention or accedes thereto after the deposit of the thirtieth instrument of ratification, acceptance, approval or accession, it shall enter into force on the ninetieth day after the date of deposit by such Contracting Party of its instrument of ratification, acceptance, approval or accession.

4. Any protocol, except as otherwise provided in such protocol, shall enter into force for a Contracting Party that ratifies, accepts or approves that protocol or accedes thereto after its entry into force pursuant to paragraph 2 above, on the ninetieth day after the date on which that Contracting Party deposits its instrument of ratification, acceptance, approval or accession, or on the date on which this Convention enters into force for that Contracting Party, whichever shall be the later.

5. For the purposes of paragraphs 1 and 2 above, any instrument deposited by a regional economic integration organization shall not be counted as additional to those deposited by member States of such organization.

Article 37. Reservations

No reservations may be made to this Convention.

Article 38. Withdrawals

1. At any time after two years from the date on which this Convention has entered into force for a Contracting Party, that Contracting Party may withdraw from the Convention by giving written notification to the Depositary.

2. Any such withdrawal shall take place upon expiry of one year after the date of its receipt by the Depositary, or on such later date as may be specified in the notification of the withdrawal.

3. Any Contracting Party which withdraws from this Convention shall be considered as also having withdrawn from any protocol to which it is party.

Article 39. Financial Interim Arrangements

Provided that it has been fully restructured in accordance with the requirements of Article 21, the Global Environment Facility of the United Nations Development Programme, the United Nations Environment Programme and the International Bank for Reconstruction and Development shall be the institutional structure referred to in Article 21 on an interim basis, for the period between the entry into force of this Convention and the first meeting of the Conference of the Parties or until the Conference of the Parties decides which institutional structure will be designated in accordance with Article 21.

Article 40. Secretariat Interim Arrangements

The secretariat to be provided by the Executive Director of the United Nations Environment Programme shall be the secretariat referred to in Article 24, paragraph 2, on an interim basis for the period between the entry into force of this Convention and the first meeting of the Conference of the Parties.

Article 41. Depositary

The Secretary-General of the United Nations shall assume the functions of Depositary of this Convention and any protocols.

Article 42. Authentic Texts

The original of this Convention, of which the Arabic, Chinese, English, French, Russian and Spanish texts are equally authentic, shall be deposited with the Secretary-General of the United Nations.

IN WITNESS WHEREOF the undersigned, being duly authorized to that effect, have signed this Convention.

Done at Rio de Janeiro on this fifth day of June, one thousand nine hundred and ninety-two.

Annex I

IDENTIFICATION AND MONITORING

1. Ecosystems and habitats: containing high diversity, large numbers of endemic or threatened species, or wilderness; required by migratory species; of social, economic, cultural or scientific importance; or, which are representative, unique or associated with key evolutionary or other biological processes;

2. Species and communities which are: threatened; wild relatives of domesticated or cultivated species; of medicinal, agricultural or other economic value; or social, scientific or cultural importance; or importance for research into the conservation and sustainable use of biological diversity, such as indicator species; and

3. Described genomes and genes of social, scientific or economic importance.

Annex II

Part 1

ARBITRATION

Article 1

The claimant party shall notify the secretariat that the parties are referring a dispute to arbitration pursuant to Article 27. The notification shall state the subject-matter of arbitration and include, in particular, the articles of the Convention or the protocol, the interpretation or application of which are at issue. If the parties do not agree on the subject matter of the dispute before the President of the tribunal is designated, the arbitral tribunal shall determine the subject matter. The secretariat shall forward the information thus received to all Contracting Parties to this Convention or to the protocol concerned.

Article 2

1. In disputes between two parties, the arbitral tribunal shall consist of three members. Each of the parties to the dispute shall appoint an arbitrator and the two arbitrators so appointed shall designate by common agreement the third arbitrator who shall be the President of the tribunal. The latter shall not be a national of one of the parties to the dispute, nor have his or her usual place of residence in the territory of one of these parties, nor be employed by any of them, nor have dealt with the case in any other capacity.

2. In disputes between more than two parties, parties in the same interest shall appoint one arbitrator jointly by agreement.

3. Any vacancy shall be filled in the manner prescribed for the initial appointment.

Article 3

1. If the President of the arbitral tribunal has not been designated within two months of the appointment of the second arbitrator, the Secretary-General of the United Nations shall, at the request of a party, designate the President within a further two-month period.

2. If one of the parties to the dispute does not appoint an arbitrator within two months of receipt of the request, the other party may inform the Secretary-General who shall make the designation within a further two-month period.

Article 4

The arbitral tribunal shall render its decisions in accordance with the provisions of this Convention, any protocols concerned, and international law.

Article 5

Unless the parties to the dispute otherwise agree, the arbitral tribunal shall determine its own rules of procedure.

Article 6

The arbitral tribunal may, at the request of one of the parties, recommend essential interim measures of protection.

Article 7

The parties to the dispute shall facilitate the work of the arbitral tribunal and, in particular, using all means at their disposal, shall:

(a) Provide it with all relevant documents, information and facilities; and

(b) Enable it, when necessary, to call witnesses or experts and receive their evidence.

Article 8

The parties and the arbitrators are under an obligation to protect the confidentiality of any information they receive in confidence during the proceedings of the arbitral tribunal.

Article 9

Unless the arbitral tribunal determines otherwise because of the particular circumstances of the case, the costs of the tribunal shall be borne by the parties to the dispute in equal shares. The tribunal shall keep a record of all its costs, and shall furnish a final statement thereof to the parties.

Article 10

Any Contracting Party that has an interest of a legal nature in the subject-matter of the dispute which may be affected by the decision in the case, may intervene in the proceedings with the consent of the tribunal.

Article 11

The tribunal may hear and determine counterclaims arising directly out of the subject-matter of the dispute.

Article 12

Decisions both on procedure and substance of the arbitral tribunal shall be taken by a majority vote of its members.

Article 13

If one of the parties to the dispute does not appear before the arbitral tribunal or fails to defend its case, the other party may request the tribunal to continue the proceedings and to make its award. Absence of a party or a failure of a party to defend its case shall not constitute a bar to the proceedings. Before rendering its final decision, the arbitral tribunal must satisfy itself that the claim is well founded in fact and law.

Article 14

The tribunal shall render its final decision within five months of the date on which it is fully constituted unless it finds it necessary to extend the time-limit for a period which should not exceed five more months.

Article 15

The final decision of the arbitral tribunal shall be confined to the subject-matter of the dispute and shall state the reasons on which it is based. It shall contain the names of the members who have participated and the date of the final decision. Any member of the tribunal may attach a separate or dissenting opinion to the final decision.

Article 16

The award shall be binding on the parties to the dispute. It shall be without appeal unless the parties to the dispute have agreed in advance to an appellate procedure.

Article 17

Any controversy which may arise between the parties to the dispute as regards the interpretation or manner of implementation of the final decision may be submitted by either party for decision to the arbitral tribunal which rendered it.

Part 2

CONCILIATION

Article 1

A conciliation commission shall be created upon the request of one of the parties to the dispute. The commission shall, unless the parties otherwise agree, be composed of five members, two appointed by each Party concerned and a President chosen jointly by those members.

Article 2

In disputes between more than two parties, parties in the same interest shall appoint their members of the commission jointly by agreement. Where two or more parties have separate interests or there is a disagreement as to whether they are of the same interest, they shall appoint their members separately.

Article 3

If any appointments by the parties are not made within two months of the date of the request to create a conciliation commission, the Secretary-General of the United Nations shall, if asked to do so by the party that made the request, make those appointments within a further two-month period.

Article 4

If a President of the conciliation commission has not been chosen within two months of the last of the members of the commission being appointed, the Secretary-General of the United Nations shall, if asked to do so by a party, designate a President within a further two-month period.

Article 5

The conciliation commission shall take its decisions by majority vote of its members. It shall, unless the parties to the dispute otherwise agree, determine its own procedure. It shall render a proposal for resolution of the dispute, which the parties shall consider in good faith.

Article 6

A disagreement as to whether the conciliation commission has competence shall be decided by the commission.

MULTILATERAL

ENVIRONMENT AND NATURAL RESOURCES

NON-BINDING DOCUMENTS

Declaration on the Protection of the Arctic Environment and Arctic Environmental Protection Strategy, Rovaniemi, 1991

Done at Rovaniemi 14 June 1991

Primary source citation: Copy of text provided by the U.S. Department of State

DECLARATION ON THE PROTECTION OF THE ARCTIC ENVIRONMENT

We, the Representatives of the Governments of Canada, Denmark, Finland, Iceland, Norway, Sweden, the Union of Soviet Socialist Republics and the United States of America;

Meeting at Rovaniemi, Finland for the First Ministerial Conference on the Protection of the Arctic Environment;

Deeply concerned with threats to the Arctic environment and the impact of pollution on fragile Arctic ecosystems;

Acknowledging the growing national and international appreciation of the importance of Arctic ecosystems and an increasing knowledge of global pollution and resulting environmental threats;

Resolving to pursue together in other international environmental fora those issues affecting the Arctic environment which require broad international cooperation;

Emphasizing our responsibility to protect and preserve the Arctic environment and recognizing the special relationship of the indigenous peoples and local populations to the Arctic and their unique contribution to the protection of the Arctic Environment;

Hereby adopt the Arctic Environmental Protection Strategy and commit ourselves to take steps towards its implementation and consider its further elaboration.

We commit ourselves to a joint Action Plan of the Arctic Environmental Protection Strategy which includes:

- Cooperation in scientific research to specify sources, pathways, sinks and effects of pollution, in particular, oil, acidification, persistent organic contaminants, radioactivity, noise and heavy metals as well as sharing of these data;

- Assessment of potential environmental impacts of development activities;

- Full implementation and consideration of further measures to control pollutants and reduce their adverse effects to the Arctic environment.

We intend to assess on a continuing basis the threats to the Arctic environment through the preparation and updating of reports on the state of the Arctic environment, in order to propose further cooperative action.

We also commit ourselves to implement the following measures of the Strategy:

- Arctic Monitoring and Assessment Programme (AMAP) to monitor the levels of, and assess the effects of, anthropogenic pollutants in all components of the Arctic environment. To this end, an Arctic Monitoring and Assesment Task Force will be established. Norway will provide for an AMAP secretariat.

- Protection of the Marine Environment in the Arctic, to take preventive and other measures directly or through competent international organizations regarding marine pollution in the Arctic irrespective of origin.

- Emergency Prevention, Preparedness and Response in the Arctic, to provide a framework for future cooperation in responding to the threat of environmental emergencies.

- Conservation of Arctic Flora and Fauna, to facilitate the exchange of information and coordination of research on species and habitats of flora and fauna.

We agree to hold regular meetings to assess the progress made and to coordinate actions which will implement and further develop the Arctic Environmental Protection Strategy.

We agree to continue to promote cooperation with the Arctic indigenous peoples and to invite their organizations to future meetings as observers.

We agree to meet in 1993 and accept the kind invitation of the Government of Denmark and the Home Rule Government of Greenland to hold the next meeting in Greenland.

Wherefore, we, the undersigned Representatives of our respective Governments, recognizing its political significance and environmental importance, and intending to promote its results, have signed this Declaration.

Done at Rovaniemi on the 14th of June, 1991

ARCTIC ENVIRONMENTAL PROTECTION STRATEGY

June 14, 1991

PREFACE

In September 1989, on the initiative of the government of Finland, officials from the eight Arctic countries met in Rovaniemi, Finland to discuss cooperative measures to protect the Arctic environment. They agreed to work towards a meeting of circumpolar Ministers responsible for Arctic environmental issues. The September 1989 meeting was followed by preparatory meetings in Yellowknife, Canada in April 1990; Kiruna, Sweden in January 1991; and, Rovaniemi, Finland in June 1991.

In addition to the numerous technical and scientific reports prepared under this initiative, the Arctic Environmental Protection Strategy was developed. This Strategy represents the culmination of the cooperative efforts of the eight Arctic countries:

Canada
Denmark
Finland
Iceland
Norway
Sweden
Union of Soviet Socialist Republics
United States of America.

The eight Arctic countries were assisted in the preparation of the Strategy by the following observers:

Inuit Circumpolar Conference
Nordic Saami Council
USSR Association of Small Peoples of the North

Federal Republic of Germany
Poland
United Kingdom

United Nations Economic Commission for Europe
United Nations Environment Program
International Arctic Science Committee

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1. INTRODUCTION

There is a growing national and international appreciation of the importance of Arctic ecosystems and an increasing knowledge of global pollution and resulting environmental threats. The Arctic is highly sensitive to pollution and much of its human population and culture is directly dependent on the health of the region's ecosystems. Limited sunlight, ice cover that inhibits energy penetration, low mean and extreme temperatures, low species diversity and biological productivity and long-lived organisms with high lipid levels all contribute to the sensitivity of the Arctic ecosystem and cause it to be easily damaged. This vulnerability of the Arctic to pollution requires that action be taken now, or degradation may become irreversible.

The governments of the Arctic countries have become increasingly aware of the need for, and their responsibility to combat these threats to the Arctic ecosystem. On the initiative of Finland, the eight Arctic countries of USSR, USA, Sweden, Norway, Iceland, Finland, Denmark and Canada have met to prepare a strategy to protect the Arctic environment. The Arctic countries realize that the pollution problems of today do not respect national boundaries and that no state alone will be able to act effectively against environmental threats to the Arctic. They have also been moved by the international call for action expressed by the World Commission on Environment and Development as well as the concerns of the indigenous peoples living in the Arctic region. The Arctic countries with the participation of Arctic indigenous peoples have prepared this environmental protection Strategy. The Strategy builds on the initiatives already taken nationally and by indigenous peoples to protect the Arctic environment.

It is recognized that this Strategy, and its implementation, must incorporate the knowledge and culture of indigenous peoples. It is understood that the cultures and the continued existence of the indigenous peoples have been built on the sound stewardship of nature and its resources.

The use of natural resources is an important activity of Arctic nations. Therefore, this Strategy should allow for sustainable economic development in the north so that such development does not have unacceptable ecological or cultural impacts. The Strategy must also rely on the best scientific and technological advice that countries are able to produce and share.

Arctic ecosystems are influenced and in some cases threatened by factors occurring also outside the Arctic. In turn, the Arctic also exerts an important influence on the global environment. The implementation of an Arctic Environmental Protection Strategy will therefore benefit both the Arctic countries and the world at large. The Strategy is also designed to guide development in a way that will safeguard the Arctic environment for future generations and in a manner that is compatible with nature.

The Arctic countries are committed to international cooperation to ensure the protection of the Arctic environment and its sustainable and equitable development, while protecting the cultures of indigenous peoples.

Only through careful stewardship by Arctic countries and Arctic peoples can environmental damage and degradation be prevented. These are the challenges which must be taken up in order to secure our common future.

The Strategy is comprised of a number of component parts, beginning with a statement of objectives. These objectives establish the broad direction in which the eight Arctic countries are intending to move. The objectives are accompanied by statements of principle which are designed to guide the actions of Arctic countries individually and collectively, as they move toward achievement of the objectives. The Strategy also describes the problems and priorities which the eight Arctic countries agree need to be addressed at this time.

Tools, whether legal, scientific or administrative, are also reviewed in order to define appropriate mechanisms for implementation of the Strategy. This is particularly relevant to that section of the Strategy which defines the specific actions that the eight countries will undertake jointly or individually to deal with priority issues and pollution problems. The implementation of the Strategy will be carried out through national legislation and in accordance with international law, including customary international law as reflected in the 1982 United Nations Convention on the Law of the Sea.

Finally, the Strategy outlines plans for future cooperation towards the implementation of the Strategy.

2. OBJECTIVES AND PRINCIPLES

2.1 Objectives

The objectives of the Arctic Environmental Protection Strategy are:

i) To protect the Arctic ecosystem including humans;

ii) To provide for the protection, enhancement and restoration of environmental quality and the sustainable utilization of natural resources, including their use by local populations and indigenous peoples in the Arctic;

iii) To recognize and, to the extent possible, seek to accommodate the traditional and cultural needs, values and practices of the indigenous peoples as determined by themselves, related to the protection of the Arctic environment;

iv) To review regularly the state of the Arctic environment;

v) To identify, reduce, and, as a final goal, eliminate pollution.

2.2 Principles:

The Arctic Environmental Protection Strategy and its implementation by the eight Arctic countries will be guided by the following principles:

i) Management, planning and development activities shall provide for the conservation, sustainable utilization and protection of Arctic ecosystems and natural resources for the benefit and enjoyment of present and future generations, including indigenous peoples;

ii) Use and management of natural resources shall be based on an approach which considers the value and interdependent nature of ecosystem components;

iii) Management, planning and development activities which may significantly affect the Arctic ecosystems shall:

   a) be based on informed assessments of their possible impacts on the Arctic environment, including cumulative impacts;

   b) provide for the maintenance of the regions's ecological systems and biodiversity;

   c) respect the Arctic's significance for and influence on the global climate;

   d) be compatible with the sustainable utilization of Arctic ecosystems;

   e) take into account the results of scientific investigations and the traditional knowledge of indigenous peoples;

vi) Information and knowledge concerning Arctic ecosystems and resource use will be developed and shared to support planning and should precede, accompany and follow development activities;

vii) Consideration of the health, social, economic and cultural needs and values of indigenous peoples shall be incorporated into management, planning and development activities;

viii) Development of a network of protected areas shall be encouraged and promoted with due regard for the needs of indigenous peoples;

ix) International cooperation to protect the Arctic environment shall be supported and promoted;

x) Mutual cooperation in fulfilling national and international responsibilities in the Arctic consistent with this Strategy, including the use, transfer and/or trade, of the most effective and appropriate technology to protect the environment, shall be promoted and developed.

3. PROBLEMS AND PRIORITIES

At the first meeting in 1989 of the eight Arctic countries there was early recognition that many of the environmental problems that individual nations had been addressing, were in fact shared amongst the eight. To begin with, six specific pollution issues were identified as requiring attention. These issues were associated with persistent organic contaminants, oil, heavy metals, noise, radioactivity, and acidification.

State of the Environment Reports were prepared on each of these topics and have been published separately. It was also agreed that these will be updated as necessary.

It was recognized that the ability to completely understand these issues was restricted by the lack of a comprehensive scientific data base and coordinated monitoring program on the state of Arctic ecosystems. Furthermore, the potential impact of these specific pollutants on Arctic flora and fauna underlined the need to consider establishing a mechanism to facilitate a cooperative approach to their conservation. Other environmental problems including the depletion of the ozone layer and global warming were not addressed because they were already being considered in other fora. It was also determined that since the Arctic environment is particularly vulnerable to accidental discharges and uncontrolled releases of pollutants, enhanced mechanisms to address environmental emergencies in the Arctic were needed.

3.1 Persistent Organic Contaminants

The use and production of persistent organic contaminants (e.g. polychlorinated biphenyls (PCBs), DDT, hexachlorocyclohexane (HCH), chlordane and toxaphene has been stopped or restricted in some countries, however, many are still widely manufactured and used on a global basis. They are hazardous environmental contaminants due to their high stability and persistence in the environment, potential for bioaccumulation and high chronic toxicity, and the large quantities which have been released into the environment.

Although there are no major sources of these contaminants in the Arctic, they, nevertheless, reach the Arctic environment via long-range transport by rivers, the atmosphere and ocean currents from more industrialized centres, particularly Asia, Europe and North America. Due to the highly lipophilic nature of most chlorinated organic contaminants, they become concentrated in the fatty tissues of species in the Arctic food chain. The highest levels of contaminants are therefore detected in the blubber and fat tissue of animals at the top of the food chain (e.g. polar bears, whales and seals). This is of particular concern in the Arctic because of the high level of consumption of lipid-rich wildlife foods by residents, resulting in a pathway of these contaminants to humans.

The presence of chlorinated organic contaminants has been reported in human populations throughout the world. The level of PCBs in breast milk samples collected from Inuit women in northern Quebec, was approximately five times higher than that of Caucasian women living in southern Quebec, Canada.

The variable and generally sparse database on chlorinated organic contaminants in the Arctic prohibits for the most part, the determination of any spatial or temporal trends. In Canadian studies, chlordane compound residue levels in polar bear fat have been reported to be four times higher in 1984 than in 1969, while levels of DDT did not change and other chlorinated contaminants measures were twice as high.

Concentrations of chlorinated organic contaminants in the Arctic ecosystem are generally lower than in heavily polluted areas such as the Great Lakes, or the Baltic Sea. There are, however, some exceptions - the more volatile compounds (e.g. HCB, toxaphene) are often detected in the Arctic at concentrations similar to those in source regions.

Little is known about the potential effects of chlorinated organic contaminants on the ecosystem. However, there is evidence that a broad spectrum of contaminants is reaching the Arctic and there is sufficient toxicological data as well as field data to make reasonable extrapolations with regard to ecosystem consequences in the Arctic. Chronic effects of chlorinated organic contamination observed in other regions (e.g. reproductive failure, bill and foot abnormalities, cancer) are of the most significance. The lower concentrations detected in the Arctic do not diminish the potential significance of their effects on ecosystem health.

3.2 Oil Pollution

The Arctic is one of the areas most vulnerable to adverse impacts from chronic and acute oil pollution. This is due to physical environmental conditions such as low temperature, periods with little or no light, ice cover etc. Low

temperatures lead to reduced evaporation of the more volatile, toxic oil components. Dark, cold winters in the Arctic lead to reduced ultraviolet radiation and biological decomposition of oil. In areas of drift ice, oil dispersal caused by wave action is also reduced. Oil in iced areas will be trapped between ice floes or under the ice, and only partly transported to the ice surface. These factors result in a generally slower decomposition of oil in the Arctic than in temperate regions. The period in which a particular oil spill can be harmful to wildlife is thus comparatively longer in the Arctic.

The marginal ice zone is particularly vulnerable to oil pollution. A large part of the primary production in the Arctic, is found in this zone, which makes it extremely important for the whole Arctic ecosystem. Although there is no evidence that an oil spill reduces primary productivity to a significant degree, direct effects on marine life can be devastating, especially in the marginal ice zones.

Feathers and fur contaminated by oil quickly lose their insulating properties, and the oil will often cause skin inflammation. Both will lead to a negative energy balance of the affected animal. Ingested oil, in particular unweathered oil with a high content of volatile substances, can cause serious intoxication of birds and mammals. No studies indicate that any of these species tend to avoid oil spills.

The amount of information available on oil spills in the Arctic, and probably the accuracy of the estimated quantities, varies considerably. Information on continuous discharges is scarce, and estimates of indirect oil transport (atmosphere, ocean currents, and rivers) have not been available. Order of magnitude calculations show that river transport is the main contribution of oil pollution to the Arctic (estimated at 200,000 metric tons per annum).

The highest risk of oil spills is connected with transportation activities and production of oil as well as to a lesser degree, exploration activities. Their occurrence will depend on the level of activity in the Arctic, the technical standards of the activity and the preventative measures taken.

The physical constraints caused by Arctic conditions imply particular technological challenges regarding oil spill clean up. Effective methods and techniques for containing and cleaning up oil spills from water and ice are currently limited.

The available information on ambient oil pollution in the Arctic is scarce. More information is needed, obtained with standardized methodologies in order to have comparable data for the whole region, with special emphasis on fluvial inputs and concentrations in surface marine waters.

3.3 Heavy Metals

Levels of heavy metals have been found in the air, precipitation, ocean waters, soils, rivers, lakes and bottom sediments of the Arctic as well as in marine, freshwater and terrestrial biota. These levels occur as a result of natural phenomena as well as from regional sources and global transport.

Heavy metal concentrations in air and precipitation are mainly due to long-range atmospheric transport from industrial centers resulting in a deposition of heavy metals on vegetation, snow, and the sea which generally decreases from south to north. To a lesser extent discharges from local mining operations and the methylation of inorganic mercury often associated with large scale impoundments of water in previously vegetated areas (i.e. hydroelectric developments), also account for elevated heavy metal concentrations. Canadian and Finnish studies indicate methyl mercury levels in fish rise measurably after the flooding of new reservoirs, depending upon the amount of organic material present.

The temporal trends of long-range heavy metal pollution of the Arctic particularly mercury, cadmium, lead, arsenic and nickel have been determined by analyzing ice cores from glaciers. There has been an increasing trend since the middle of the 19th century and a sharp increase in the 20th century. Recent analyses of vegetation seem to indicate that a decrease may now be occurring.

The concentrations of heavy metals in lakes and rivers are generally higher than in Arctic sea water. A decrease in pH caused by acid precipitation increases the dissolution rates of heavy metals which may increase the rate of accumulation in the biota.

In the Arctic marine environment the concentrations of heavy metals in water are low compared to more southerly latitudes. However, the concentrations in biota increase in the food chain, and in the top level predators such as seals

and whales the concentrations, especially of cadmium, increase to levels much higher than observed in other areas. For example, in some Canadian studies, cadmium levels in narwhal kidney were among the highest ever reported in marine mammals. This build-up is probably due to naturally occurring phenomena, but such occurrences make increases in the concentrations of heavy metals in the Arctic marine environment as a result of industrial sources more problematic than elsewhere.

The high concentrations of heavy metals in marine mammals and some bird species constitute a problem in districts where tissues from such animals constitute a significant part of the diet. Thus increased concentrations of mercury have been found in Greenlanders from hunting districts. Elevated levels of mercury have also been found in the Native populations of Northern Quebec, Canada.

3.4 Noise

The waters of the Arctic region are a unique noise environment mainly due to the presence of ice. The ambient noise is strongly influenced by the dynamic processes of ice formation, melt, deformation and movement. This situation is different from ice free waters. In periods where ice cracking and wind noise are absent, areas covered by shore-fast ice are among the quietest underwater environments.

Human activities create noise types and levels, which may disturb marine mammals, or mask the "natural" sounds of importance to those mammals. Some types of noise may affect fish as well as marine mammals. There are a number of serious gaps in our knowledge of the effects of underwater noise on marine mammals, including the inability to assess the effect of repeated noise exposure on stocks.

There is considerable evidence that most types of disturbance do not cause mortality. However, some noisy activities, including low level overflights by aircraft, near seals and walrus at haul out sites can cause mortality through stampedes or abandonment.

Many marine mammals seem able to adapt to or at least tolerate many types of disturbances or increased noise levels. However the scarcity of direct evidence of serious consequences from disturbances does not necessarily mean that marine mammals are not stressed or affected in some other way. Noise from human activities may cause short-term or long-term behavioral reactions and temporary displacement of various marine mammals. The biological significance of most of these reactions is unknown.

Moving sound sources, notably boats and aircraft, seem to be more disturbing than stationary sources, e.g. dredges and drillships. The effects on fish and wildlife of cumulative exposure to noise are largely unknown.

3.5 Radioactivity

There have been two major causes of radioactive contamination affecting the Arctic region: atmospheric nuclear-weapons testing during the 1950s and 1960s and the accident at the Chernobyl nuclear power plant in 1986. Of greatest concern are the long-lived radionuclides, including Strontium-90 (29 year half-life) and Cesium-137 (30 year half-life). Studies have shown that these fallout derived radionuclides are efficiently retained by surface vegetation, especially lichen, in this nutrient-poor environment and are biologically recycled in Arctic ecosystems. As a result, those indigenous peoples and local populations consuming as their main food caribou or reindeer meat with elevated levels of radiocesium, may have accumulated higher levels.

Other radioactive threats to the environment exist, e.g. accidental discharges which are of a biological significance associated with nuclear power sources and transport, storage and disposal of radioactive waste.

When considering the total radiation dose, attention should be given to the radiation from man-made sources and to natural radiation.

A number of bilateral and multilateral arrangements, including those with the International Atomic Energy Agency (IAEA), address issues related to exchange of information, early notification of radiation release, emergency preparedness and response to nuclear accidents and transboundary movement of radioactive materials.

3.6 Acidification

The most important acidifying substances are sulphur and nitrogen compounds emitted mainly by vehicles, industrial activities and coal and oil based power plants. Long-range transport is the most important factor influencing the air quality in the Arctic, especially in winter. The sulphur and nitrogen emission from industrial activities in the Arctic is also a considerable factor. Until now, little emphasis has been placed on the effects of acid deposition on Arctic ecosystems. Furthermore, knowledge derived from studies in temperate zones is not directly relevant to the Arctic.

One of the most well known examples of a problem associated with acidity in the Arctic is the Arctic haze phenomenon produced from acid pollutant aerosols. Arctic haze has been under intense study and much is known about its nature, distribution and composition. Acidification is evolving into a prominent environmental problem around certain northern industrial centers. In northern Fennoscandia, in the northwestern parts of the Soviet Union and in the eastern parts of Canada, natural factors increase the sensitivity to acidification and anthropogenic impacts have extended through the whole area.

The interaction between acidic deposition and the soils of different ecosystems is an important component of the acidification process. A continuous excessive acid load leads to the mobilization of aluminum and heavy metals.

The combined effects of acid deposition and the stresses already induced by the harsh climate increase the possibility of vegetation damage in the Arctic.

Critical loads, rates of acidification, and conditions influencing cold climate environments need more detailed regional monitoring and research. In general, northern ecosystems are under greater stress than temperate ecosystems.

4. INTERNATIONAL MECHANISMS FOR THE PROTECTION OF THE ARCTIC ENVIRONMENT

Before determining the specific actions required to protect the Arctic environment, a review of existing and proposed international and bilateral agreements and policy declarations pertaining to the Arctic environment has been completed. This review has revealed the existence of a number of mechanisms that may be employed to protect the Arctic environment, and provides a useful tool for the implementation of the Strategy. The List of Major International Instruments and Policy Declarations Pertaining to the Arctic Environment has been distributed and will be periodically updated. Through the more specific studies of the six priority areas, some important gaps have been identified.

4.1 Persistent Organic Contaminants

International legal instruments which currently control air pollution are not specifically directed at limiting the emission of persistent organic contaminants and related contaminants. Work is underway within the UN ECE Convention on Long-Range Transboundary Air Pollution (LRTAP) to review the problem and identify specific control actions. Any new international legal instrument would need to target contaminant reductions in the industrialized areas of Asia, Europe and North America. Consequently, proper management and protection of the Arctic ecosystem from the effects of these contaminants will require cooperation through effective bilateral and multilateral agreements among both circumpolar and non-circumpolar nations.

4.2 Oil Pollution

The main international instruments relevant inter alia to oil pollution in the Arctic are:

i) the 1969 International Convention on Civil Liability for Oil Pollution Damage (CLC Convention);

ii) the 1969 International Convention relating to Intervention on the High Seas in Cases of Oil Pollution Casualties (Convention on Intervention);

iii) the 1971 International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage (Fund Convention);

iv) the 1972 Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London Dumping Convention);

v) the 1974 Convention on the Prevention of Marine Pollution from Land-Based Sources (Paris Convention);

vi) the International Convention for the Prevention of Pollution from Ships (MARPOL 1973/78); and

vii) the 1982 United Nations Convention on the Law of the Sea (UNCLOS) (not yet in force);

viii) the International Convention on Oil Pollution Preparedness, Response and Cooperation, 1990 (not yet in force).

Certain issues with respect to oil pollution in the Arctic are insufficiently covered by the existing international agreements and conventions. For example, some instruments are limited in their application and only partially apply to the Arctic region. There is a need to consider the possibility of extending the geographic scope of these instruments. The provisions of the various instruments also need to be further assessed to determine their adequacy under Arctic conditions taking into account the particularly vulnerable nature of the region.

Strict standards in the transportation of oil in the Arctic are needed. Such standards should be developed under the framework of the International Maritime Organization (IMO). Arctic countries should consider becoming parties to or applying the relevant principles of the various existing conventions and agreements on oil pollution management.

4.3 Heavy Metals

There are few multilateral conventions and bilateral agreements which deal with heavy metal inputs in the environment.

The UN ECE LRTAP Convention is one of the major international conventions which limits harmful atmospheric emissions. Work is currently underway within this forum to identify and decide upon specific control actions to deal with heavy metals.

Control of discharges of heavy metals to the marine environment are governed by both the 1972 Convention for the Prevention of Marine Pollution by Dumping from Ships and Aircraft (Oslo Convention) and the 1974 Convention on the Prevention of Marine Pollution from Land-based Sources (Paris Convention). The UNCLOS provides opportunities for controlling the discharge of harmful substances e.g. heavy metals. There are only a few bilateral arrangements between the Arctic countries controlling these substances.

4.4 Noise

Existing legal instruments do not address the effects of noise on the Arctic ecosystem. There may be a need for Arctic countries to agree on the adoption of procedures to ensure that in the planning and conduct of activities in the Arctic, measures are taken to facilitate the adequate monitoring of the potential disturbance from noise including the verification of predicted effects and the identification of any unforseen effects. Such evaluations should ensure that environmental protection measures are given due consideration.

4.5 Radioactivity

The 1986 International Atomic Energy Agency (IAEA) Convention on Early Notification of a Nuclear Accident, provides an adequate mechanism for cooperation and exchange of information applicable in the Arctic region. In addition, there are a number of bilateral and multilateral agreements in existence which provide for such events as the early notification of accidental radioactive discharges (e.g. between Finland and other Nordic countries, Finland and the USSR, 1987).

With respect to emergency preparedness and assistance, the IAEA Convention Assistance in the Case of a Nuclear Accident or Radiological Emergency was established to facilitate prompt international assistance when requested in the event of a nuclear accident. Additionally, a number of bilateral and multilateral agreements have been concluded between the Arctic countries that both supplement and provide greater precision to the IAEA arrangements. These should be examined to ensure that the specific environmental conditions of the Arctic are addressed.

Furthermore, consideration should be given to practical mechanisms between national authorities to implement the coordination of emergency measures within the existing international legal framework of the IAEA.

4.6 Acidification

The Arctic is exposed to the long range transport of acidifying substances from various sources. A number of control measures have been introduced at the United Nations Economic Commission for Europe (ECE) and bilaterally. Although, in general, these measures do not contain provisions relating specifically to the Arctic region, they do refer to emission sources that affect the Arctic.

Arctic acidification is a complex phenomenon resulting from a wide range of different types of activities also conducted outside the Arctic itself. The extent of acidification in the Arctic is still uncertain, although there is recognition of problems such as Arctic haze and forest devastation and other large-scale acidification effects and regional damage in certain Arctic areas. There is however, insufficient knowledge of the critical loads, to allow for agreement on common standards. The lack of comparable data also presents problems. Consequently, improved monitoring and research directed at the rate and nature of acidification processes under Arctic conditions are needed.

Under both the 1985 and 1988 protocols to the UN ECE LRTAP Convention for the Reduction of Sulphur and Nitrogen Oxide Emissions or their Transboundary Fluxes, the Cooperative Program for Monitoring and Evaluation of the Long-Range Transmission of Air Pollutants in Europe (EMEP) is to report annually to the LRTAP Executive Body its calculations of budgets, transboundary fluxes and deposition of sulphur and nitrogen oxides. EMEPs geographical scope is currently limited to Europe but it is suggested that EMEP might be utilized for collecting data on Arctic acidification in cooperation with the Arctic Monitoring and Assessment Program (AMAP). Arctic countries should consider becoming parties to all the relevant agreements in this field. This is particularly relevant for those countries in the northern hemisphere where there are major sources of sulphur and nitrogen emissions.

5. ACTIONS

The eight Arctic countries agree to proceed cooperatively with the following action plan. These commitments will begin the process of addressing the serious environmental issues identified and assessed through the preparation of specific state of environment reports. These issues will require regular updates for evaluation by the eight Arctic countries on the progress being made, and to advise on possible new courses of action.

5.1 Persistent Organic Contaminants

i) In order to further define the likely sources, pathways, sinks and effects of these pollutants, and to expand the data base to cover all the component parts of the Arctic environment, the eight Arctic countries will undertake cooperative monitoring (AMAP) and research related to the problem of persistent organic contaminants in the Arctic ecosystem.

ii) The Arctic countries will consider the feasibility of developing national inventories on the production, use, and emissions of persistent organic contaminants (e.g. pesticides) to be collected, and made available and summarized in the state of the Arctic environment reports.

iii) The Arctic countries will also address the problem of persistent organic contaminants under existing or proposed international agreements and will review other mechanisms to advance this issue in other international fora.

iv) In order to achieve an early reduction in the movement of persistent organic contaminants into the Arctic environment, the eight Arctic countries will support the process now under way within the UN ECE LRTAP Convention to further define the problem and to develop proposals for international action on the control of these substances under the Convention. Those Arctic countries which are partners to the Paris and Helsinki Conventions will actively support ongoing inventory and assessment work under those conventions.

v) The Arctic countries agree to implement measures to reduce and/or control the use of the following polluting substances: chlordane, DDT, toxaphene, and PCBs. Those Arctic countries which have not already done so, also recognize that the elimination of the problem of persistent organic contaminants in the Arctic may also require controls on the production of these substances.

vi) The Arctic countries will review the situation with regard to other persistent organic contaminants with a view to establishing priorities and timetables for a program of emission elimination or control in cooperation with other international fora.

5.2 Oil Pollution

i) In order to achieve better documentation of the level of oil pollution in the Arctic environment, the initiation of monitoring of hydrocarbons as a part of the AMAP, will play an important role.

ii) There is also a need to consider establishment of a reporting system on discharges and spills, with regard to provide adequate documentation on the pollution threat, in the Arctic.

iii) The elements agreed upon in Section 8, Protection of the Arctic Marine Environment and Section 9, Emergency Prevention, Preparedness and Response will comprise the basis for further cooperation in preventing and combatting oil pollution.

iv) The Arctic countries agree to take measures as soon as possible to adhere to the strictest relevant international standards within the conventions, to which the countries are parties, regarding discharges irrespective of origin.

v) The Arctic countries agree to undertake joint actions in relevant international fora to further strengthen recognition of the particularly sensitive character of ice-covered parts of the Arctic Ocean.

5.3 Heavy Metals

i) An improved understanding of the dynamics of heavy metals in the Arctic ecosystem is required. The countries will undertake a program of coordinated monitoring (AMAP) and research to identify sources, pathways and sinks of heavy metals; spatial and temporal trends; and, ecological effects with special emphasis on human health effects.

ii) The eight Arctic countries agree to implement measures to control conditions that lead to the release of heavy metals by industrial activities including as appropriate the implementation of best available technology and other concerted actions in accordance with appropriate international agreements (e.g. UN ECE LRTAP Convention).

5.4 Noise

i) The effects of noise associated with Arctic marine and terrestrial projects should be evaluated as part of the project planning and approval processes, and if significant adverse noise effects on the specific components of Arctic ecosystems are predicted, then measures should be implemented to avoid or mitigate the impact.

ii) Efforts should be made to improve the knowledge on marine mammal auditory function, communication and behavior and the current noise exposure assessment techniques. For specific project evaluations, site-specific data should be addressed before and during the evaluation. This includes determining how much exposure migrating stocks are encountering throughout the year.

5.5 Radioactivity

i) AMAP should address radioactivity. Common Standards and techniques for monitoring and analysis, consistent with IAEA standards and technology should be developed.

ii) Future monitoring and health assessments should consider the effects from exposure to radiation from man-made sources together with natural or background radiation.

iii) Further consideration should be given to the development of more specific measures, consistent within the international legal framework of IAEA procedures, for cooperation amongst Arctic countries to deal with emergencies caused by the accidental release of radioactive substances and to provide mutual assistance in the harsh Arctic environment.

iv) All relevant data concerning previous studies and measurements should be collated in the existing relevant data bases of which information should be exchanged between the governments and institutions concerned.

5.6 Acidification

i) Regional Arctic research programs should be developed to assess the current loadings and potential effects of acid deposition on representative sensitive Arctic ecosystems. Special attention should be given to those regions or ecosystems for which existing data or assessments suggest that there is or is likely to be an acidification problem.

ii) Consideration should be given to expanding deposition monitoring programs, within the framework of AMAP and existing networks such as the ECE/EMEP deposition monitoring network, to encompass measurement of acid deposition in the Arctic. Emphasis should also be placed on measuring dry deposition.

iii) Emphasis should be placed on defining critical loads and setting target loads for sensitive Arctic ecosystems. In the event that these target loads are being exceeded, steps should be taken to reduce those emissions contributing to the problem, in accordance with international agreements such as the ECE LRTAP Convention. Reduction of emissions of sulphur and nitrogen should be sought by, inter alia, implementing the use of the best available technology.

6. ARCTIC MONITORING AND ASSESSMENT PROGRAM

The eight Arctic countries recognize that the Arctic region represents one of the relatively pristine areas on earth. It is therefore of great importance to preserve and to protect the Arctic.

Measurements in the Arctic indicate that pollutants originating from anthropogenic activities in the mid-latitudes are transported to the Arctic by atmospheric processes, ocean currents and rivers, and that pollutants are deposited and accumulated in the Arctic environment and its ecosystems.

Exploitation of natural resources, and concomitant urban and industrial expansion within the Arctic region, also contribute to the degradation of the Arctic environment and affect the living conditions for the people of the region.

Distinguishing human-induced changes from changes caused by natural phenomena in the Arctic will require monitoring of selected key indicators of the Arctic Environment. Therefore, the eight Arctic countries have agreed to promote development of an Arctic Monitoring and Assessment Program (AMAP) in order to understand and document these changes and so that the monitoring results may be used to anticipate adverse biological, chemical and physical changes to the ecosystem and to prevent, minimize and mitigate these adverse effects.

The primary objective of the AMAP is the measurement of the levels of anthropogenic pollutants and the assessment of their effects in relevant component parts of the Arctic environment. The assessments should be presented in status reports to relevant fora as a basis for necessary steps to be taken to reduce the pollution.

Two of the most significant threats to the present Arctic environment may come from climate change, induced by global warming, and the effects of stratospheric ozone depletion. Programs to detect and determine the causes and effects of climate change and ozone depletion are to a large extent being developed by other international groupings and in other fora.

It is important for AMAP to be aware of these programs and to develop links with them from an Arctic perspective in order to encourage and facilitate an Arctic component in climate programs. Data obtained for assessing climate change will provide important inputs to the AMAP dataset. In turn, AMAP data will be relevant to climate change programs in the Arctic.

The pollution data available from the Arctic region are with a few exceptions based on research programs performed within limited subject areas by national programs and not supported by bilateral or international cooperation. There is an urgent need for cooperation among local and regional efforts and global programs in order to obtain better documentation on the environmental situation in the Arctic especially with regard to long-range air and marine pollution.

From the outset, the AMAP should as far as possible be based on existing programs. The program should be initiated in a step by step fashion as indicated in the proposal for the AMAP.

6.1 Actions

i) Distinguishing human-induced changes from changes caused by natural phenomena in the Arctic will require estimates and regular reporting by the Arctic countries of contaminant emissions and discharges, including accidental discharges, as well as transport and deposition. In addition monitoring of deposition and selected key indicators of the Arctic biological environment, are required. The eight Arctic countries should therefore agree to establish an Arctic Monitoring and Assessment Program (AMAP) to fulfill these monitoring objectives.

ii) The AMAP should be implemented through the establishment of an Arctic Monitoring and Assessment Task Force and a small secretariat, established by the Government of Norway.

iii) AMAP should as far as possible build upon existing programs. Thus, one of the important tasks of the AMAP will be to review and coordinate existing national programs, establish a data directory, and to develop these programs when appropriate in an international framework.

iv) As an initial priority, the AMAP should focus on persistent organic contaminants and on selected heavy metals and radionuclides, and ultimately to monitor ecological indicators to provide a basis for assessments of the status of Arctic ecosystems.

v) The eight Arctic countries will receive regular State of the Arctic Environment Reports summarizing the results of the AMAP.

As a result of these actions, the Arctic Monitoring and Assessment Program will provide information for:

i) integrated assessment reports on status and trends in the condition of Arctic ecosystems;

ii) identifying possible causes for changing conditions;

iii) detecting emerging problems, their possible causes, and the potential risk to Arctic ecosystems including indigenous peoples and other Arctic residents; and

iv) recommending actions required to reduce risks to Arctic ecosystems.

7. PROTECTION OF THE ARCTIC MARINE ENVIRONMENT

The eight Arctic Countries recognize their particular interests and responsibilities as neighbouring countries in the Arctic, and emphasize the need to take preventive measures directly or through competent international organizations, consistent in particular with the 1982 United Nations Convention on the Law of the Sea regarding marine pollution in the Arctic, irrespective of origin.

To this end the Arctic countries agree to:

i) Apply the principles concerning the protection and preservation of the Marine Environment as reflected in the 1982 United Nations Convention on the Law of the Sea, and, in accordance with the continuing development of international environmental law, to further strengthen rules in order to protect the Arctic;

ii) Take measures as soon as possible to adhere to the strictest relevant international standards within the conventions, to which the countries are parties, regarding discharges irrespective of origin;

iii) Undertake joint actions in relevant international fora to further strengthen recognition of the particularly sensitive character of ice-covered parts of the Arctic Ocean;

iv) Review, in accordance with the general aims of this environmental Strategy, the relevance to the Arctic of international instruments connected with the protection of the marine environment, with the aim that all Arctic countries accede, where appropriate, to the instruments, or apply the principles and regulations embodied therein;

v) Jointly support the appropriate initiatives of international organizations in developing mandatory standards in order to improve the protection against accidental pollution affecting the marine environment, and actively ensure application of such standards;

vi) Carry out studies of pollution in the monitoring activities within AMAP.

8. EMERGENCY PREVENTION, PREPAREDNESS AND RESPONSE

At the same time as the Arctic is exhibiting signs of serious contamination from pollutants carried via long range transport from mid latitudes, there has been an increase in development activities and shipping within the Arctic. These activities can have serious environmental consequences in the Arctic as a result of accidents leading, inter alia, to spills and discharges of oil and other harmful substances. The vulnerability of the Arctic ecosystem to these sudden intrusions will be variable. Some limited mapping of areas sensitive to oil spills has been conducted but more remains to be done. The relative hazard/risk associated with different activities is also not well documented, nor is the geographic distribution of high risk activities.

There are a number of bilateral, regional and global arrangements which presently exist to deal with accidental pollution, such as the 1983 Canada-Denmark Agreement for Cooperating relating to the Marine Environment, the 1971 Agreement between Denmark, Finland, Norway and Sweden on Cooperation on Oil Pollution and the 1990 International Convention on Oil Pollution Preparedness, Response and Cooperation. There are other multilateral conventions related to nuclear accidents or radiological emergencies supplemented by bilateral agreements on the exchange of information and reporting relative to nuclear plants and events.

The UN ECE has started work on an international convention, on the prevention and control of the transboundary effects of industrial accidents. A part of the work is the establishment or reinforcement of regional and subregional mechanisms for response, assistance and exchange of information on environmental emergencies.

8.1 Actions

The Arctic countries agree to the following framework for taking early cooperative action on emergency prevention, preparedness and response in the Arctic. They will take steps to review existing bilateral and multilateral arrangements in order to evaluate the adequacy of the geographical coverage of the Arctic regions by cooperative agreements. They will also take steps to convene a meeting of experts to consider and recommend the necessary system of cooperation, which could include, inter alia, the following elements:

i) Actions to respond to significant accidental pollution from any source;

ii) Coordination and harmonization of preventive policies, strategies and measures;

iii) Establishment of a system for early notification in the event of significant accidental pollution or an imminent threat of such pollution;

iv) Assessment of the risks for significant accidental pollution and of the adverse effects in such cases so as to enable the parties to take the necessary preventive, preparedness and response measures;

v) Inclusion of studies on effects of accidental pollution in conjunction with the monitoring activities of AMAP;

vi) Cooperation in the conduct of research into and development of methods and technologies for prevention of, preparedness for and response to significant accidental pollution in the Arctic;

vii) Cooperation in developing a system for exchange of information on research and new developments regarding methods and technologies on response in the Arctic;

viii) Exchange of information on legislative and administrative measures as well as policies;

ix) Measures for providing information to the public and public participation; and

x) Further enhance regional bilateral and multilateral cooperation in the Arctic regarding prevention, preparedness and response by developing, as appropriate, contingency plans, training programs, as well as other

measures to facilitate assistance to the parties, in particular mutual assistance for efficient emergency response in the event of significant accidental pollution, or the imminent threat of such pollution.

9. CONSERVATION OF ARCTIC FLORA AND FAUNA

The health of Arctic flora and fauna is a key concern of the Arctic countries. These flora and fauna assume special significance in this region since they are an essential factor helping to define the culture and survival of the people living there. Although isolated geographically from the industrialized temperate regions of the globe, it has now been amply demonstrated that this has not excluded Arctic flora and fauna from the negative consequences of human activities in mid latitudes. The impacts on the Arctic have escalated over the past several decades and both scientific and traditional knowledge have been pointing to the danger signals. Many of these concerns are enumerated in the six Arctic State of the Environment reports. They confirm that Arctic flora, fauna and their habitats are being threatened by large scale economic development projects; long range transport of pollutants; and degradation of habitats.

The problems facing Arctic flora, fauna and habitats are not confined to any one country but are circumpolar in nature. Furthermore, because of the uniqueness of Arctic ecosystems, strategies to deal with these problems will differ from those of other regions.

Several multilateral and bilateral agreements which pertain to the conservation of Arctic flora and fauna and their habitats are currently in existence. Most however, have been designed to be universally applicable to, or to apply to, a wider geographical area than the Arctic. Only the Agreement on Conservation of Polar Bears and some individual provisions in other agreements provide a specific Arctic focus.

The eight Arctic countries should therefore seek to create a distinct forum for scientists, indigenous peoples and conservation managers engaged in Arctic flora, fauna and habitat related activities to exchange data and information on issues such as shared species and habitats and to collaborate, as appropriate, for more effective research, sustainable utilization and conservation.

9.1 Actions

The eight Arctic countries are mindful of the need to conserve Arctic flora and fauna and their habitats in their natural diversity, and protect these resources from the pollution threats described in this Arctic Environmental Protection Strategy. They recognize the special relationship and importance of Arctic flora and fauna and their habitats to indigenous peoples. The countries also recognize the benefits to be gained from sharing scientific and management information, traditional knowledge, and other data with respect to Arctic flora and fauna and their habitats. With due regard to existing international cooperation, and in an effort to improve research and information aimed at protecting these resources and their habitats from pollution and environmental degradation, they have reached the following understanding:

i) The eight Arctic countries will cooperate for the conservation of Arctic flora and fauna, their diversity, and their habitats. Such cooperation shall include, inter alia, exchanges of research and management information and data, and coordination of research, on the following:

   a) Arctic species, their health and habitats;

   b) the laws, regulations and practices of the parties with respect to the conservation and management of such species; and

   c) the importance and relationship to, and use of, such species by indigenous peoples and the unique contribution of indigenous peoples to the stewardship of nature and its resources;

ii) Each country will provide to the other countries, as appropriate, such information, publications, and/or documents as may be agreed under the terms of the Strategy;

iii) The eight Arctic countries will seek to develop other forms of cooperation, including exchanges of experts, of traditional knowledge, and of other data, as well as engaging in joint projects, bilateral or multilateral meetings, symposia and joint publications, to meet the intent of this Strategy;

iv) The eight Arctic countries will each seek to develop more effective laws, regulations and practices for the conservation of Arctic flora and fauna, their diversity, and their habitats in close cooperation with Arctic indigenous peoples;

v) The eight Arctic countries agree to establish a mechanism for furthering the following aims in close cooperation with Arctic indigenous peoples:

a) Promoting and facilitating exchanges of information and personnel as provided for in this Strategy;

b) Making recommendations with respect to the priorities, the orientation and the nature of research and monitoring programs of the Arctic countries;

c) Proposing strategies for enhanced conservation of Arctic species and their habitats; and

d) Regularly compiling and disseminating information on activities regarding the conservation of Arctic flora and fauna.

vi) The eight Arctic countries will consult, as deemed appropriate with the International Arctic Science Committee and other bodies on any matter that falls within the scope of this Strategy;

vii) By October 1991 each Country will identify to the others its national agency designated to coordinate the cooperation envisaged by this section;

viii) The Countries agree that the terms and conditions of the cooperation and exchanges provided for in this section will be subject to the laws and regulations of the Countries;

ix) Each country will make its best efforts to provide resources adequate to carry out its responsibilities under this section. It is understood that the ability of each country to carry out activities is subject to the availability of funds, and that countries will seek to ensure long-term funding for necessary projects.

10. FURTHER COOPERATION

Continuity and further cooperation are essential for increasing the protection of the Arctic environment. In order to ensure this continuity and cooperation, the eight Arctic countries agree to hold regular Meetings on the Arctic Environment.

The date and venue of the next meeting will be agreed upon at the preceding meeting. Decisions on the agenda and participation of observers will be made and communicated to interested parties in advance of the meeting.

The decision to invite observers should be based on a pragmatic and functional evaluation of their involvement in and contribution to Arctic environmental questions.

In order to facilitate the participation of Arctic indigenous peoples the following organizations will be invited as observers: the Inuit Circumpolar Conference, the Nordic Saami Council and the U.S.S.R. Association of Small Peoples of the North.

The Meetings on the Arctic Environment shall serve to:

i) identify and coordinate actions to implement and further develop the Arctic Environmental Protection Strategy;

ii) initiate cooperation in new fields relevant to the environmental protection of the Arctic;

iii) make necessary recommendations in order to protect the Arctic environment;

iv) improve existing environmental regimes relevant to the Arctic; and

v) assess and report on progress on actions agreed upon.

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CHAPTER 17

Protection of oceans, all kinds of seas, including enclosed and semi-enclosed seas, and coastal areas and the protection, rational use and development of their living resources

INTRODUCTION

17.1 The marine environment - including the oceans and all seas and adjacent coastal areas - forms an integrated whole that is an essential component of the global life - support system and a positive asset that presents opportunities for sustainable development. International law, as reflected in the provisions of the United Nations Convention on the Law of the Sea[1,2] referred to in this chapter of Agenda 21, sets forth rights and obligations of States and provides the international basis upon which to pursue the protection and sustainable approaches to marine and coastal area management and development, at the national, subregional, regional and global levels, approaches that are integrated in content, and are precautionary and anticipatory in ambit, as reflected in the following programme areas:[3]

(a) Integrated management and sustainable development of coastal areas, including exclusive economic zones;

(b) Marine environmental protection;

(c) Sustainable use and conservation of marine living resources of the high seas;

(d) Sustainable use and conservation of marine living resources under national jurisdiction.

(e) Addressing critical uncertainties for the management of the marine environment and climate change.

[1] References to the United Nations Convention on the Law of the Sea in this chapter of Agenda 21 do not prejudice the position of any State with respect to signature, ratification of or accession to the Convention.

[2] References to the United Nations Convention on the Law of the Sea in this chapter of Agenda 21 do not prejudice the position of States which view the Convention as having a unified character.

[3] Nothing in the programme areas of this chapter should be interpreted as prejudicing the rights of the States involved in a dispute of sovereignty or in the delimitation of the maritime areas concerned.

(f) Strengthening international, including regional, cooperation and coordination.

(g) Sustainable development of islands.

17.2 The implementation by developing countries of the activities set forth below shall be commensurate with their individual technological and financial capacities and priorities in allocating resources for development needs and ultimately depends on the technology transfer and financial resources required and made available to them.

PROGRAMME AREAS

A. Integrated management and sustainable development of coastal and marine areas, including exclusive economic zones

Basis for action

17.3 The coastal area contains diverse and productive habitats important for human settlements, development and local subsistence. More than half the world's population lives within 60 km of the shoreline, and this could rise to three quarters by the year 2020. Many of the world's poor are crowded in coastal areas. Coastal resources are vital for many local communities and indigenous people. The exclusive economic zone (EEZ) is also an important marine area where the States manage the development and conservation of natural resources for the benefit of their people. For small island States or countries, these are the areas most available for development activities.

17.4 Despite national, subregional, regional and global efforts, current approaches to the management of marine and coastal resources have not always proved capable of achieving sustainable development, and coastal resources and the coastal environment are being rapidly degraded and eroded in many parts of the world.

Objectives

17.5 Coastal States commit themselves to integrated management and sustainable development of coastal areas and the marine environment under their national jurisdiction. To this end, it is necessary to, inter alia:

(a) Provide for an integrated policy and decision-making process, including all involved sectors, to promote compatibility and a balance of uses;

(b) Identify existing and projected uses of coastal areas and their interactions;

(c) Concentrate on well-defined issues concerning coastal management;

(d) Apply preventive and precautionary approaches in project planning and implementation, including prior assessment and systematic observation of the impacts of major projects;

(e) Promote the development and application of methods, such as national resource and environmental accounting, that reflect changes in value resulting from uses of coastal and marine areas, including pollution, marine erosion, loss of resources end habitat destruction;

(f) Provide access, as far as possible, for concerned individuals, groups and organizations to relevant information and opportunities for consultation and participation in planning and decision-making at appropriate levels.

Activities

(a) Management-related activities

17.6 Each coastal State should consider establishing, or where necessary strengthening, appropriate coordinating mechanisms (such as a high-level policy planning body) for integrated management and sustainable development of coastal and marine areas and their resources, at both the local and national levels. Such mechanisms should include consultation, as appropriate, with the academic and private sectors, non-governmental organizations, local communities, resource user groups, and indigenous people. Such national coordinating mechanisms could provide, inter alia for:

(a) Preparation and implementation of land and water use and siting policies;

(b) Implementation of integrated coastal and marine management and sustainable development plans and programmes at appropriate levels;

(c) Preparation of coastal profiles identifying critical areas, including eroded zones, physical processes, development patterns, user conflicts and specific priorities for management;

(d) Prior environmental impact assessment, systematic observation and follow-up of major projects including the systematic incorporation of results in decision-making;

(e) Contingency plans for human induced and natural disasters, including likely effects of potential climate change and sealevel rise, as well as contingency plans for degradation and pollution from anthropogenic origin, including spills of oil and other materials;

(f) Improvement of coastal human settlements, especially in housing, drinking water and treatment and disposal of sewage, solid wastes and industrial effluents;

(g) Periodic assessment of the impacts of external factors and phenomena to ensure that the objectives of integrated management and sustainable development of coastal areas and the marine environment are met;

(h) Conservation and restoration of altered critical habitats;

(i) Integration of sectoral programmes on sustainable development for settlements, agriculture, tourism, fishing, ports and industries affecting the coastal area;

(j) Infrastructure adaptation and alternative employment;

(k) Human resource development and training;

(l) Public education, awareness and information programmes;

(m) Promoting environmentally sound technology and sustainable practices;

(n) Development and simultaneous implementation of environmental quality criteria.

17.7 Coastal States, with the support of international organizations, upon request, should undertake measures to maintain biological diversity and productivity of marking species and habitats under national jurisdiction. Inter alia, these measures might include: surveys of marine biodiversity, inventories of endangered species and critical coastal and marine habitats; establishment and management of protected areas; and support of scientific research and dissemination of its results.

(b) Data and information

17.8 Coastal States, where necessary, should improve their capacity to collect, analyze, assess and use information for sustainable use of resources, including environmental impacts of activities affecting the coastal and marine areas. Information for management purposes should receive priority support in view of the intensity and magnitude of the changes occurring in the coastal and marine areas. To this end, it is necessary to, inter alia:

(a) Develop and maintain databases for assessment and management of coastal areas and all seas and their resources;

(b) Develop socio-economic and environmental indicators;

(c) Conduct regular environmental assessment of the state of the environment of coastal and marine areas;

(d) Prepare and maintain profiles of coastal area resources, activities, uses, habitats and protected areas based on the criteria of sustainable development;

(e) Exchange information and data.

17.9 Cooperation with developing countries, and, where applicable, subregional and regional mechanisms, should be strengthened to improve their capacities to achieve the above.

(c) International and regional cooperation and coordination

17.10 The role of international cooperation and coordination on a bilateral basis and, where applicable, within a subregional, interregional, regional or global framework, is to support and supplement national efforts of coastal States to promote integrated management and sustainable development of coastal and marine areas.

17.11 States should cooperate, as appropriate, in the preparation of national guidelines for integrated coastal zone management and development, drawing on existing experience. A global conference to exchange experience in the field could be held before 1994.

Means of implementation

(a) Financing and cost evaluation

17.12 The UNCED Secretariat has estimated the average total annual cost (1993-2000) of implementing the activities of this programme to be about $6 billion including about $50 million from the international community on grant or concessional terms. These are indicative and order of magnitude estimates only and have not been reviewed by governments. Actual costs and financial terms, including any that are non-concessional, will depend upon, inter alia, the specific strategies and programmes governments decide upon for implementation.

(b) Scientific and technological means

17.13 States should cooperate in the development of necessary coastal systematic observation, research and information management systems. They should provide access to and transfer environmentally safe technologies and methodologies for sustainable development of coastal and marine areas to developing countries. They should also develop technologies and endogenous scientific and technological capacities.

17.14 International organizations, whether subregional, regional or global, as appropriate, should support coastal States, upon request, in these efforts, as indicated above, devoting special attention to developing countries.

(c) Human resource development

17.15 Coastal States should promote and facilitate the organization of education and training in integrated coastal and marine management and sustainable development for scientists, technologists, managers, including community-based managers, and users, leaders, indigenous peoples, fisherfolk, women and youth among others. Management, development as well as environmental protection concerns and local planning issues should be incorporated in educational curricula and public awareness campaigns, with due regard to traditional ecological knowledge and socio-cultural values.

17.16 International organizations, whether subregional, regional or global, as appropriate, should support coastal States, upon request, in the areas, as indicated above, devoting special attention to developing countries.

(d) Capacity-building

17.17 Full cooperation should be extended, upon request, to coastal States in their capacity-building efforts and, where appropriate, capacity-building should be included in bilateral and multilateral development cooperation. Coastal States may consider, inter alia:

(a) Ensuring capacity-building at the local level;

(b) Consulting on coastal and marine issues with local administrations, the business community, the academic sector, resource user groups and the general public;

(c) Coordinating sectoral programmes while building capacity;

(d) Identifying existing and potential capabilities, facilities and needs for human resources development and scientific and technological infrastructure;

(e) Developing scientific and technological means and research;

(f) Promoting and facilitating human resource development and education;

(g) Supporting "centres of excellence" in integrated coastal and marine resource management;

(h) Supporting pilot demonstration programmes and projects in integrated coastal and marine management.

B. Marine environmental protection

Basis for action

17.18 Degradation of the marine environment can result from a wide range of sources. Land-based sources contribute 70 per cent of marine pollution, while maritime transport and dumping-at-sea activities contribute 10 per cent each. The contaminants that pose the greatest threat to the marine environment are, in variable order of importance and depending on differing national or regional situations: sewage, nutrients, synthetic organic compounds, sediments, litter and plastics, metals, radionuclides, oil/hydrocarbons, and polycyclic aromatic hydrocarbons (PAHs). Many of the polluting substances originating from land-based sources are of particular concern to the marine environment since they exhibit at the same time toxicity, persistence and bioaccumulation in the food chain. There is currently no global scheme to address marine pollution from land-based sources.

17.19 Degradation of the marine environment can also result from a wide range of activities on land. Human settlements, land use, construction of coastal infrastructure, agriculture, forestry, urban development, tourism and industry can affect the marine environment. Coastal erosion and siltation are of particular concern.

17.20 Marine Pollution is also caused by shipping and sea-based activities. Approximately 600,000 tons of oil enter the oceans each year as a result of normal shipping operations, accidents and illegal discharges. With respect to offshore oil and gas activities, currently machinery space discharges are regulated internationally and six regional conventions to control platform discharges have been under consideration. The nature and extent of environmental impacts from offshore oil exploration and production activities generally account for a very small proportion of marine pollution.

17.21 A precautionary and anticipatory rather than a reactive approach is necessary to prevent the degradation of the marine environment. This requires, inter alia, the adoption of precautionary measures, environmental impact assessments, clean production techniques, recycling, waste audits and minimization, construction and/or improvement of sewage treatment facilities, quality management criteria for the proper handling of hazardous substances and a comprehensive approach to damaging impacts from air, land and water. Any management framework must include the improvement of coastal human settlements and the integrated management and development of coastal areas.

Objectives

17.22 States, in accordance with the provisions of the United Nations Convention on the Law of the Sea on protection and preservation of the marine environment, commit themselves, in accordance with their policies, priorities and resources, to prevent, reduce and control degradation of the marine environment so as to maintain and improve its life-support and productive capacities. To this end, it is necessary to:

(a) Apply preventive, precautionary and anticipatory approaches so as to avoid degradation of the marine environment, as well as reducing the risk of long-term or irreversible adverse effects upon it;

(b) Ensure prior assessment of activities which may have significant adverse impacts upon the marine environment;

(c) Integrate protection of the marine environment into relevant general environmental, social and economic development policies;

(d) Develop economic incentives, where appropriate, to apply clean technologies and other means consistent with the internalization of environmental costs, such as the polluter pays principle, so as to avoid degradation of the marine environment;

(e) Improve the living standards of coastal populations, particularly in developing countries, so as to contribute to reducing the degradation of the coastal and marine environment.

17.23 States agree that provision of additional financial resources, through appropriate international mechanisms, as well as access to cleaner technologies and relevant research, would be necessary to support action by developing countries to implement this commitment.

Activities

(a) Management-related activities

Prevention, reduction and control of degradation of the marine environment from land-based activities.

17.24 In carrying out their commitment to deal with degradation of the marine environment from land-based activities, States should take action at the national level and, where appropriate, at the regional and subregional levels, in concert with action to implement programme area A, and take account of the Montreal Guidelines for the Protection of the Marine Environment from Land-Based Sources.

17.25 To this end, States, with the support of the relevant international environmental, scientific, technical and financial organizations, should cooperate, inter alia, to:

(a) Consider updating, strengthening and extending the Montreal Guidelines, as appropriate;

(b) Assess the effectiveness of existing regional agreements and action plans, where appropriate, with a view to identifying means of strengthening action, where necessary, to prevent, reduce and control marine degradation caused by land-based activities;

(c) Initiate and promote the development of new regional agreements, where appropriate;

(d) Develop means of providing guidance on technologies to deal with the major types of pollution of the marine environment from land-based sources, according to the best scientific evidence;

(e) Develop policy guidance to relevant global funding mechanisms;

(f) Identify additional steps requiring international cooperation.

17.26 The UNEP Governing Council is invited to convene, as soon as practicable, an intergovernmental meeting on protection of the marine environment from land-based activities.

17.27 As concerns sewage, priority actions to be considered by States may include:

(a) Incorporating sewage concerns when formulating or reviewing coastal development plans, including human settlement plans;

(b) Building and maintaining sewage treatment facilities in accordance with national policies and capacities and international cooperation available;

(c) Locating coastal outfalls so as to maintain an acceptable level of environmental quality and to avoid exposing shell fisheries, water intakes and bathing areas to pathogens;

(d) Promoting environmentally sound co-treatments of domestic and compatible industrial effluents, with the introduction, where practicable, of controls on the entry of effluents which are not compatible with the system;

(e) Promoting primary treatment of municipal sewage discharged to rivers, estuaries and the sea, or other solutions appropriate to specific sites;

(f) Establishing and improving local, national, subregional and regional, as necessary, regulatory and monitoring programmes to control effluent discharge using minimum sewage effluent guidelines and water quality criteria giving due consideration to the characteristics of receiving bodies and the volume and type of pollutants.

17.28 As concerns other sources of pollution, priority actions to be considered by States may include:

(a) Establishing or improving, as necessary, regulatory and monitoring programmes to control effluent discharges and emissions, including the development and application of control and recycling technologies;

(b) Promoting risk and environmental impact assessments to help ensure an acceptable level of environmental quality;

(c) Promoting assessment and cooperation at the regional level, where appropriate, with respect to the input of point source pollutants from new installations;

(d) Eliminating the emission or discharge of organohalogen compounds that threaten to accumulate to dangerous levels in the marine environment;

(e) Reducing the emission or discharge of other synthetic organic compounds that threaten to accumulate to dangerous levels in the marine environment;

(f) Promoting controls over anthropogenic inputs of nitrogen and phosphorus that enter coastal waters where problems, such as eutrophication, threaten the marine environment or its resources;

(g) Cooperating with developing countries, through financial and technological support, to maximize the best practicable control and reduction of substances and wastes that are toxic persistent or liable to bio-accumulate, and to establish environmentally sound land-based waste disposal alternatives to sea dumping;

(h) Cooperating in the development and implementation of environmentally sound land-use techniques and practices to reduce run-off to water-courses and estuaries which would cause pollution or degradation of the marine environment;

(i) Promoting the use of environmentally less harmful pesticides and fertilizers and alternative methods for pest control, and considering the prohibition of those found to be environmentally unsound;

(j) Adopting new initiatives at national, subregional and regional levels for controlling the input of non-point source pollutants, which require broad changes in sewage and waste management, agricultural practices, mining, construction and transportation.

17.29 As concerns physical destruction of coastal and marine areas causing degradation of the marine environment, priority actions should include control and prevention of coastal erosion and siltation due to anthropogenic factors related to, inter alia, land-use and construction techniques and practices. Watershed management practices should be promoted so as to prevent, control and reduce degradation of the marine environment.

Prevention, reduction and control of degradation of the marine environment from sea-based activities

17.30 States, acting individually, bilaterally, regionally or multilaterally and within the framework of IMO and other relevant international organizations, whether subregional, regional or global, as appropriate, should assess the need for additional measures to address degradation of the marine environment:

(a) From shipping, by:

(i) Supporting wider ratification and implementation of relevant shipping conventions and protocols;

(ii) Facilitating the processes in (i), providing support to individual States upon request to help them overcome the obstacles identified by them;

(iii) Cooperating in monitoring marine pollution from ships, especially from illegal discharges, (e.g. aerial surveillance) and enforcing MARPOL discharges, provisions more rigorously;

(iv) Assessing the state of pollution caused by ships in particularly sensitive areas identified by IMO and taking action to implement applicable measures, where necessary, within such areas to ensure compliance with generally accepted international regulations;

(v) Taking action to ensure respect of areas designated by coastal States, within their exclusive economic zones, consistent with international law, in order to protect and preserve rare or fragile ecosystems, such as coral reefs and mangroves;

(vi) Considering adoption of appropriate rules on ballast water discharge to prevent the spread of non-indigenous organisms;

(vii) Promoting navigational safety by adequate charting of coasts and ship-routing, as appropriate;

(viii) Assessing the need for stricter international regulations to further reduce the risk of accidents and pollution from cargo ships (including bulk carriers);

(ix) Encouraging IMO and IAEA to work together to complete consideration of a code on the carriage of irradiated nuclear fuel in flasks on board ships;

(x) Revising and updating the IMO Code of Safety for Nuclear Merchant Ships and considering how best to implement a revised code;

(xi) Supporting the ongoing activity within IMO regarding development of appropriate measures for reducing air pollution from ships;

(xii) Supporting the ongoing activity within IMO regarding the development of an international regime governing the transportation of hazardous and noxious substances carried by ships and further considering whether the compensation funds similar to the ones established under the Fund Convention would be appropriate in respect of pollution damage caused by substances other than oil;

(b) From dumping, by:

(i) Supporting wider ratification, implementation and participation in relevant Conventions on dumping at sea including early conclusion of a future strategy for the London Dumping Convention;

(ii) Encouraging the London Dumping Convention parties to take appropriate steps to stop ocean dumping and incineration of hazardous substances;

(c) From offshore oil and gas platforms, by assessing existing regulatory measures to address discharges, emissions, and safety and the need for additional measures;

(d) From ports, by facilitating establishment of port reception facilities for the collection of oily and chemical residues and garbage from ships, especially in MARPOL special areas, and promoting the establishment of smaller scale facilities in marinas and fishing harbours.

17.31 IMO and as appropriate, other competent United Nations organizations, when requested by the States concerned, should assess, where appropriate, the state of marine pollution in areas of congested shipping, such as heavily used international straits, with a view to ensuring compliance with generally accepted international regulations, particularly those related to illegal discharges from ships, in accordance with the provisions of Part III of the United Nations Convention on the Law of the Sea.

17.32 States should take measures to reduce water pollution caused by organotin compounds used in anti-fouling paints.

17.33 States should consider ratifying the Convention on Oil Pollution Preparedness, Response and Cooperation, which addresses, inter alia, the development of contingency plans on the national and international level, as appropriate, including provision of oil-spill response material and training of personnel, including its possible extension to chemical spill response.

17.34 States should intensify international cooperation to strengthen or establish, where necessary, regional oil/chemical spill response centres and/or, as appropriate, mechanisms in cooperation with relevant subregional, regional or global intergovernmental organizations and, where appropriate, industry-based organizations.

(b) Data and information

17.35 States should, as appropriate, and in accordance with the means at their disposal and with due regard for their technical and scientific capacity and resources, make systematic observations on the state of the marine environment. To this end, States should, as appropriate, consider:

(a) Establishing systematic observation systems to measure marine environmental quality, including causes and effects of marine degradation, as a basis for management;

(b) Regularly exchanging information on marine degradation caused by land-based and sea-based activities and on actions to prevent, control and reduce such degradation;

(c) Supporting and expanding international programmes for systematic observations such as the mussel watch programme, building on existing facilities with special attention to developing countries;

(d) Establishing a clearing-house on marine pollution control information, including processes and technologies to address marine pollution control and to support their transfer to developing countries and other countries with demonstrated needs;

(e) Establishing a global profile and database providing information on the sources, types, amounts and effects of pollutants reaching the marine environment from land-based activities in coastal areas and sea-based sources;

(f) Allocating adequate funding for capacity-building and training programmes to ensure the full participation of developing countries, in particular, in any international scheme under the organs and organizations of the United Nations system for the collection, analysis and use of data and information.

Means of implementation

(a) Financing and cost evaluation

Land-based activities and Sea-based activities

17.36 The UNCED Secretariat has estimated the average total annual cost (1993-2000) of implementing the activities of this programme to be about $200 million from the international community on grant or concessional terms. These are indicative and order of magnitude estimates only and have not been reviewed by governments. Actual costs and financial terms, including any that are non-concessional, will depend upon, inter alia, the specific strategies and programmes governments decide upon for implementation.

(b) Scientific and technological means

17.37 National, subregional and regional action programmes will, where appropriate, require technology transfer in conformity with chapter 34 and financial resources, particularly where developing countries are concerned, including:

(a) Assistance to industries in identifying and adopting clean production or cost-effective pollution control technologies;

(b) Planning development and application of low-cost and low-maintenance sewage installation and treatment technologies for developing countries;

(c) Equipment of laboratories to observe systematically human and other impacts on the marine environment;

(d) Identification of appropriate oil and chemical spill control materials, including low-cost locally available materials and techniques, suitable for pollution emergencies in developing countries;

(e) Study of the use of persistent organohalogens that are liable to accumulate in the marine environment to identify those which cannot be adequately controlled and to provide a basis for a decision on a time schedule for phasing them out as soon as practicable;

(f) Establishment of a clearing house on marine pollution control information, including processes and technologies to address marine pollution control and to support their transfer to developing and other countries with demonstrated needs.

(c) Human resources development

17.38 States individually or in cooperation with each other and with the support of international organizations, whether subregional, regional or global, as appropriate, should:

(a) Provide training for critical personnel required for the adequate protection of the marine environment as identified by training needs' surveys at the national, regional or subregional levels;

(b) Promote the introduction of marine environmental protection topics into the curriculum of marine studies programmes;

(c) Establish training courses for oil and chemical spill response personnel, in cooperation, where appropriate, with the oil and chemical industries;

(d) Conduct workshops on environmental aspects of port operations and development;

(e) Strengthen and provide secure financing for new and existing specialized international centres of professional maritime education;

(f) States should, through bilateral and multilateral cooperation, support and supplement the national efforts of developing countries as regards human resources development in relation to prevention and reduction of degradation of the marine environment.

(d) Capacity-building

17.39 National planning and coordinating bodies should be given the capacity and authority to review all land-based activities and sources of pollution for their impacts on the marine environment and to propose appropriate control measures.

17.40 Research facilities should be strengthened or, where appropriate, developed in developing countries, for systematic observation of marine pollution, environmental impact assessment and development of control recommendations, managed and staffed by local experts.

17.41 Special arrangements will be needed to provide adequate financial and technical resources to assist developing countries to prevent and solve problems associated with activities that threaten the marine environment.

17.42 An international funding mechanism should be created for the application of appropriate sewage treatment technologies and building sewage treatment facilities, including grants or concessional loans from international agencies and appropriate regional funds, replenished at least in part on a revolving basis by user fees.

17.43 In carrying out these programme activities, particular attention needs to be given to the problems of developing countries which would bear an unequal burden because of their lack of facilities, expertise or technical capacities.

C. Sustainable use and conservation of marine living resources of the high seas

Basis for action

17.44 Over the last decade, fisheries on the high seas have considerably expanded and currently represent approximately five per cent of total world landings. The provisions of the United Nations Convention on the Law of the Sea on the marine living resources of the high seas sets forth rights and obligations of States with respect to conservation and utilization of those resources.

17.45 However, management of high seas fisheries, including the adoption, monitoring and enforcement of effective conservation measures, is inadequate in many areas and some resources are overutilized. There are problems of unregulated fishing, overcapitalization, excessive fleet size, vessel reflagging to escape controls, insufficiently selective gear, unreliable databases and lack of sufficient cooperation between States. Action by States whose nationals and vessels fish on the high seas as well as cooperation at the bilateral, subregional, regional and global levels, is essential, particularly for highly migratory species and straddling stocks. Such action and cooperation should address inadequacies in fishing practices as well as in biological knowledge, fisheries statistics and improvement in systems for handling data. Emphasis should also be on multi-species management and other approaches which take into account the relationships among species, especially in addressing depleted species, but also in identifying the potential of underutilized or unutilized populations.

Objectives

17.46 States commit themselves to the conservation and sustainable use of marine living resources on the high seas. To this end, it is necessary to:

(a) Develop and increase the potential of marine living resources to meet human nutritional needs as well as social, economic and development goals;

(b) Maintain or restore populations of marine species at levels which can produce the maximum sustainable yield as qualified by relevant environmental and economic factors, taking into consideration relationships among species;

(c) Promote the development and use of selective fishing gear and practices that minimize waste of catch of target species and minimize bycatch of non-target species;

(d) Ensure effective monitoring and enforcement with respect to fishing activities;

(e) Protect and restore endangered marine species;

(f) Preserve habitats and other ecologically sensitive areas;

(g) Promote scientific research with respect to the marine living resources in the high seas;

17.47 Nothing in subparagraph 17.46 above restricts the right of a State or the competence of an international organization, as appropriate, to prohibit, limit or regulate the exploitation of marine mammals on the high seas more strictly than provided for in that paragraph. States shall cooperate with a view to the conservation of marine mammals and in the case of cetaceans shall in particular work through the appropriate international organizations for their conservation, management and study.

17.48 The ability of developing countries to fulfil the above objectives is dependent upon their capabilities, including the financial, scientific and technological means at their disposal. Adequate financial, scientific and technological cooperation should be provided to support action by them to implement these objectives.

Activities

(a) Management-related activities

17.49 States should take effective action, including bilateral and multilateral cooperation, where appropriate at the subregional, regional and global level, to ensure that high seas fisheries are managed in accordance with the provisions of the United Nations Convention on the Law of the Sea. In particular, they should:

(a) Give full effect to these provisions with regard to fisheries populations whose ranges lie both within and beyond exclusive economic zones (straddling stocks);

(b) Give full effect to these provisions with regard to highly migratory species;

(c) Negotiate, where appropriate, international agreements for the effective management and conservation of fishery stocks;

(d) Define and identify appropriate management units;

17.50 States should convene, as soon as possible, an intergovernmental conference under United Nations auspices, taking into account relevant activities at the subregional, regional and global levels, with a view to promoting effective implementation of the provisions of the United Nations Convention on the Law of the Sea on straddling fish stocks and highly migratory fish stocks. The conference, drawing inter alia on scientific and technical studies by FAO, should identify and assess existing problems related to the conservation and management of such fish stocks, and consider means of improving cooperation on fisheries among States, and formulate appropriate recommendations. The work and the results of the conference should be fully consistent with the provisions of UNCLOS, in particular the rights and obligations of coastal states and states fishing on the high seas.

17.51 States should ensure that fishing activities by vessels flying their flags in the high seas take place on a manner so as to minimize incidental catch.

17.52 States should take effective action consistent with international law to monitor and control fishing activities by vessels flying their flags on the high seas to ensure compliance with applicable conservation and management rules, including full, detailed, accurate and timely reporting of catches and effort.

17.53 States should take effective action consistent with international law, to deter reflagging of vessels by their nationals as a means of avoiding compliance with applicable conservation and management rules for fishing activities on the high seas.

17.54 States should prohibit dynamiting, poisoning and other comparable destructive fishing practices.

17.55 States should fully implement General Assembly resolution 46/215 on large-scale pelagic drift-net fishing.

17.56 States should take measures to increase the availability of marine living resources as human food by reducing wastage, post-harvest losses and discards, and improving techniques of processing, distribution, and transportation.

(b) Data and information

17.57 States, with the support of international organizations, whether subregional, regional or global, as appropriate, should cooperate to:

(a) Promote enhanced collection of data necessary for the conservation and sustainable use of the marine living resources of the high seas;

(b) Exchange on a regular basis up-to-date data and information adequate for fisheries assessment;

(c) Develop and share analytical and predictive tools such as stock assessment and bioeconomic models;

(d) Establish or expand appropriate monitoring and assessment programmes.

(c) International and regional cooperation and coordination

17.58 States, through bilateral and multilateral cooperation and within the framework of subregional and regional fisheries bodies, as appropriate, and with the support of other international intergovernmental agencies should assess high seas resource potentials and develop profiles of all stocks (target and non-target).

17.59 States should, where and as appropriate, ensure adequate levels of coordination and cooperation in enclosed and semi-enclosed seas and between subregional, regional and global intergovernmental fisheries bodies.

17.60 Effective cooperation within existing subregional, regional or global fisheries bodies should be encouraged. Where such organizations do not exist, States should, as appropriate, cooperate to establish such organizations.

17.61 States with an interest in a high seas fishery regulated by an existing subregional and/or regional high seas fisheries organization of which they are not members should be encouraged to join that organization, where appropriate.

17.62 States recognize:

(a) The responsibility of the International Whaling Commission for the conservation and management of whale stocks and the regulation of whaling pursuant to the 1946 International Convention for the Regulation of Whaling;

(b) The work of the International Whaling Commission Scientific Committee in carrying out studies of large whales in particular, as well as of other cetaceans;

(c) The work of other organizations, such as the Inter-American Tropical Tuna Commission and the Agreement on Small Cetaceans in the Baltic and North Sea under the Bonn Convention, in the conservation, management and study of cetaceans and other marine mammals.

17.63 States should cooperate for the conservation, management and study of cetaceans.

Means of implementation

(a) Financing and cost evaluation

17.64 The UNCED Secretariat has estimated the average total annual cost (1993-2000) of implementing the activities of this programme to be about $12 million from the international community on grant or concessional terms. These are indicative and order of magnitude estimates only and have not been reviewed by governments. Actual costs and financial terms, including any that are non-concessional, will depend upon, inter alia, the specific strategies and programmes governments decide upon for implementation.

(b) Scientific and technological means

17.65 States, with the support of relevant international organizations, where necessary, should develop collaborative technical and research programmes to improve understanding of the life cycles and migrations of species found on the high seas, including identifying critical areas and life stages.

17.66 States, with the support of relevant international organizations, whether subregional, regional or global, as appropriate, should:

(a) Develop databases on the high seas marine living resources and fisheries;

(b) Collect and correlate marine environmental data with high seas marine living resources data, including the impacts of regional and global changes brought about by natural causes as well as by human activities;

(c) Cooperate in coordinating research programmes to provide the knowledge necessary to manage high seas resources.

(c) Human resources development

17.67 Human resources development at the national level should be targeted at both development and management of high seas resources, including training in high seas fishing techniques, and in high seas resource assessment, strengthening cadres of personnel to deal with the high seas resource management and conservation, and related environmental issues, and training observers and inspectors to be placed on fishing vessels.

(d) Capacity-building

17.68 States with the support, where appropriate, of relevant international organizations, whether subregional, regional or global, should cooperate to develop or upgrade systems and institutional structures for monitoring, control and surveillance as well as the research capacity for assessment of marine living resource population.

17.69 Special support, including cooperation among States, will be needed to enhance the capacities of developing countries in the areas of data and information, scientific and technological means and human resource development in order to participate effectively in the conservation and sustainable utilization of high seas marine living resources.

D. Sustainable use and conservation of marine living resources under national jurisdiction

Basis for action

17.70 Marine fisheries yield 80 to 90 million tons of fish and shellfish per year, 95 percent of which is taken from waters under national jurisdiction. Yields have increased nearly fivefold over the past four decades. The provisions of the United Nations Convention on the Law of the Sea on marine living resources of the exclusive economic zone and other areas under national jurisdiction set forth rights and obligations of States with respect to conservation and utilization of those resources.

17.71 Marine living resources provide an important source of protein in many countries and their use is often of major importance to local communities and indigenous people. Such resources provide food and livelihoods to millions of people and if sustainably utilized, offer increased potential to meet nutritional and social needs, particularly in developing countries. To realize this potential requires improved knowledge and identification of marine living resource stocks, particularly of underutilized and unutilized stocks and species, use of new technologies, better handling and processing facilities to avoid wastage and improved quality and training of skilled personnel to effectively manage and conserve the marine living resources of the exclusive economic zone and other areas under national jurisdiction. Emphasis should also be on multi-species management and other approaches that take into account the relationships among species.

17.72 Fisheries in many areas under national jurisdiction face mounting problems, including local overfishing, unauthorized incursions by foreign fleets, ecosystem degradation, overcapitalization and excessive fleet sizes, undervaluation of catch, insufficiently selective gear, unreliable databases, increasing competition between artisanal and large-scale fishing and between fishing and other types of activities.

17.73 Problems extend beyond fisheries. Coral reefs and other marine and coastal habitats such as mangroves and estuaries are among the most highly diverse, integrated and productive of the earth's ecosystems. They often serve important ecological functions, provide coastal protection, and are critical resources for food, energy, tourism and economic development. In many parts of the world, such marine and coastal systems are under stress or threatened from a variety of sources, both human and natural.

Objectives

17.74 Coastal States, particularly developing countries and States whose economies are overwhelmingly dependent on the exploitation of the marine living resources of their exclusive economic zones, should obtain the full social and economic benefits from sustainable utilization of marine living resources within their exclusive economic zones and other areas under national jurisdiction.

17.75 States commit themselves to the conservation and sustainable use of marine living resources under national jurisdiction. To this end, it is necessary to:

(a) Develop and increase the potential of marine living resources to meet human nutritional needs as well as social, economic and development goals;

(b) Take into account traditional knowledge and interests of local communities, small-scale artisanal fisheries and indigenous people in development and management programmes;

(c) Maintain or restore populations of marine species at levels which can produce the maximum sustainable yield as qualified by relevant environmental and economic factors, taking into consideration relationships among species;

(d) Promote the development and use of selective fishing gear and practices that minimize waste of catch of target species and minimize by-catch of non-target species;

(e) Protect and restore endangered marine species;

(f) Preserve rare or fragile ecosystems as well as habitats and other ecologically sensitive areas.

17.76 Nothing in paragraph 17.75 above restricts the right of a coastal State or the competence of an international organization, as appropriate, to prohibit, limit or regulate the exploitation of marine mammals more strictly than provided for in that paragraph. States shall cooperate with a view to the conservation of marine mammals and in the case of cetaceans shall in particular work through the appropriate international organizations for their conservation, management and study.

17.77 The ability of developing countries to fulfil the above objectives is dependent upon their capabilities, including the financial, scientific and technological means at their disposal. Adequate financial, scientific and technological cooperation should be provided to support action by them to implement these objectives.

Activities

(a) Management-related activities

17.78 States should ensure that marine living resources of the exclusive economic zone and other areas under national jurisdiction are conserved and managed in accordance with the provisions of the United Nations Convention on the Law of the Sea.

17.79 Coastal States, individually or through bilateral and/or multilateral cooperation and with the support, as appropriate of international organizations, whether of subregional, regional or global, should inter alia:

(a) Assess the potential of marine living resources, including underutilized or unutilized stocks and species, by developing inventories, where necessary, for their conservation and sustainable use;

(b) Implement strategies for the sustainable use of marine living resources, taking into account the special needs and interests of small-scale artisanal fisheries, local communities and indigenous people to meet human nutritional and other development needs;

(c) Implement, in particular in developing countries, mechanisms to develop mariculture, aquaculture and small-scale, deep-sea and oceanic fisheries within areas under national jurisdiction where assessments show that marine living resources are potentially available;

(d) Strengthen their legal and regulatory frameworks, where appropriate, including management, enforcement and surveillance capabilities, to regulate activities related to the above strategies;

(e) Take measures to increase the availability of marine living resources as human food by reducing wastage, post-harvest losses and discards, and improving techniques of processing, distribution and transportation;

(f) Develop and promote the use of environmentally sound technology under criteria compatible with the sustainable use of marine living resources, including assessment of environmental impact of major new fishery practices;

(g) Enhance the productivity and utilization of their marine living resources for food and income;

17.80 States, in implementing the provisions of the United Nations Convention on the Law of the Sea, should address the issues of straddling stocks, highly migratory species, and, taking fully into account the objectives set out in paragraph 17.74, access to the surplus of allowable catches.

17.81 Coastal States should explore the scope to expand recreational and tourist activities based on marine living resources including for providing alternative sources of income. Such activities should be compatible with conservation and sustainable development policies and plans.

17.82 Coastal States should support the sustainability of small-scale artisanal fisheries. To this end, they should, as appropriate:

(a) Integrate small-scale artisanal fisheries development in marine and coastal planning, taking into account the interests of and, where appropriate, encouraging representation of fishermen, small-scale fishworkers, women, local communities and indigenous people;

(b) Recognize the rights of small-scale fishworkers and the special situation of indigenous people and local communities, including their rights to utilization and protection of their habitats on a sustainable basis;

(c) Develop systems for the acquisition and recording of traditional knowledge concerning marine living resources and environment and promote the incorporation of such knowledge into management systems.

17.83 Coastal States should ensure that, in the negotiation and implementation of international agreements on the development or conservation of marine living resources, the interests of local communities and indigenous people are taken into account, in particular their right to subsistence.

17.84 Coastal States, with the support, as appropriate, of international organizations should conduct analyses of the potential for aquaculture in marine and coastal areas under national jurisdiction and apply appropriate safeguards as to the introduction of new species.

17.85 States should prohibit dynamiting, poisoning and other comparable destructive fishing practices.

17.86 States should identify marine ecosystems exhibiting high levels of biodiversity and productivity and other critical habitat areas and provide necessary limitations on use in these areas, through, inter alia, designation of protected areas. Priority should be accorded, as appropriate, to:

(a) Coral reef ecosystems;

(b) Estuaries;

(c) Temperate and tropical wetlands, including mangroves;

(d) Seagrass beds;

(e) Other spawning and nursery areas.

(b) Data and information

17.87 States, individually or through bilateral and multilateral cooperation and with the support, as appropriate, of international organizations, whether subregional, regional, or global, should:

(a) Promote enhanced collection and exchange of data necessary for the conservation and sustainable use of the marine living resources under national jurisdiction;

(b) Exchange on a regular basis up-to-date data and information necessary for fisheries assessment;

(c) Develop and share analytical and predictive tools such as stock assessment and bioeconomic models;

(d) Establish or expand appropriate monitoring and assessment programmes;

(e) Complete/update marine biodiversity, marine living resource and critical habitat profiles of exclusive economic zones and other areas under national jurisdiction, taking account of changes in the environment brought about by natural causes as well as human activities.

(c) International and regional cooperation and coordination

17.88 States, through bilateral and multilateral cooperation, and with the support of relevant United Nations and other international organizations, should cooperate to:

(a) Develop financial and technical cooperation to enhance the capacities of developing countries in small-scale and oceanic fisheries as well as coastal aquaculture and mariculture;

(b) Promote the contribution of marine living resources to eliminate malnutrition and to achieve food self-sufficiency in developing countries, inter alia, by minimizing post harvest losses and managing stocks for guaranteed sustainable yields;

(c) Develop agreed criteria for the use of selective fishing gear and practices to minimize waste of catch of target species and minimize bycatch of non-target species;

(d) Promote seafood quality, including through national quality assurance systems for seafood, in order to promote access to markets, improve consumer confidence and maximize economic returns.

17.89 States should, where and as appropriate, ensure adequate coordination and cooperation in enclosed and semi-enclosed seas and between subregional, regional and global intergovernmental fisheries bodies.

17.90 States recognize:

(a) The responsibility of the International Whaling Commission for the conservation and management of whale stocks and the regulation of whaling pursuant to the 1946 International Convention for the Regulation of Whaling;

(b) The work of the International Whaling Commission Scientific Committee in carrying out studies of large whales in particular, as well as of other cetaceans;

(c) The work of other organizations, such as the Inter-American Tropical Tuna Commission and the Agreement on Small Cetaceans in the Baltic and North Sea under the Bonn Convention, in the conservation, management and study of cetaceans and other marine mammals.

17.91 States should cooperate for the conservation, management and study of cetaceans.

Means of implementation

(a) Financing and cost evaluation

17.92 The UNCED Secretariat has estimated the average total cost (1993-2000) of implementing the activities of this programme to be about $6 billion including about $60 million from the international community on grant or concessional terms. These are indicative and order of magnitude estimates only and have not been reviewed by governments. Actual costs will depend upon, inter alia, the specific strategies and programmes governments decide upon for implementation.

(b) Scientific and technological means

17.93 States, with the support of relevant intergovernmental organizations, as appropriate, should:

(a) Provide for the transfer of environmentally sound technologies to develop fisheries, aquaculture and mariculture, particularly to developing countries;

(b) Accord special attention to mechanisms for transferring resource information and improved fishing and aquaculture technologies to fishing communities at the local level;

(c) Promote the study, scientific assessment and use of appropriate traditional management systems;

(d) Consider observing, as appropriate, the FAO/ICES Code of Practice for Consideration of Transfer and Introduction of Marine and Freshwater Organisms;

(e) Promote scientific research on marine areas of particular importance for marine living resources, such as areas of high diversity, endemism and productivity and migratory stopover points.

(c) Human resource development

17.94 States individually or through bilateral and multilateral cooperation and with the support of relevant international organizations, whether subregional, regional or global, as appropriate, should encourage and provide support for developing countries, inter alia, to:

(a) Expand multidisciplinary education, training and research on marine living resources, particularly in social and economic sciences;

(b) Create training opportunities at national and regional levels to support artisanal including subsistence fisheries, to develop small-scale use of marine living resources and to encourage equitable participation of local communities, small-scale fishworkers, women and indigenous people;

(c) Introduce topics relating to the importance of marine living resources in educational curricula at all levels.

(d) Capacity-building

17.95 Coastal States, with the support of relevant subregional, regional and global agencies, where appropriate, should:

(a) Develop research capacities for assessment of marine living resources populations and monitoring;

(b) Provide support to local fishing communities, in particular those which rely on fishing for subsistence, indigenous people and women, including, as appropriate, the technical and financial assistance to organize, maintain, exchange and improve traditional knowledge of marine living resources and fishing techniques, and upgrade knowledge on marine ecosystems;

(c) Establish sustainable aquaculture development strategies, including environmental management in support of rural fish farming communities;

(d) Develop and strengthen, where the need may arise, institutions capable of implementing the objectives and activities related to the conservation and management of marine living resources.

17.96 Special support, including cooperation among States, will be needed to enhance the capacities of developing countries in the areas of data and information, scientific and technological means and human resource development in order to participate effectively in the conservation and sustainable use of marine living resources under national jurisdiction.

E. Addressing critical uncertainties for the management of marine environment and climate change

Basis for action

17.97 The marine environment is vulnerable and sensitive to climate and atmospheric changes. Rational use and development of coastal areas, all seas and marine resources, as well as conservation of marine environment, requires the ability to determine the present state of these systems and to predict future conditions. The high degree of uncertainty in present information inhibits effective management and limits the ability to make predictions and assess environmental change. Systematic collection of data on marine environmental parameters will be needed to apply integrated management approaches and to predict effects of global climate change and of atmospheric phenomena, such as ozone depletion, on living marine resources and the marine environment. In order to determine the role of the oceans and all seas in driving global systems and to predict natural and man-induced changes in marine and coastal environments, the mechanisms to collect, synthesize and disseminate information from research and systematic observation activities need to be restructured and reinforced considerably.

17.98 There are many uncertainties about climate change and particularly sealevel rise. Small increases in sealevel have the potential of causing significant damage to small islands and low-lying coasts. Response strategies should be based on sound data. A long-term cooperative research commitment is needed to provide data required for global climate models and to reduce uncertainty. Meanwhile, precautionary measures should be undertaken to diminish the risks and effects, particularly on small islands and on low-lying and coastal areas of the world.

17.99 Increased ultraviolet radiation derived from ozone depletion has been reported in some areas of the world. An assessment of its effects in the marine environment is needed to reduce uncertainty and to provide a basis for action.

Objectives

17.100 States, in accordance with provisions of the United Nations Convention on the Law of the Sea on marine scientific research, commit themselves to improve the understanding of the marine environment and its role on global processes. To this end, it is necessary to:

(a) Promote scientific research on and systematic observation of the marine environment within the limits of national jurisdiction and high seas, including interactions with atmospheric phenomena such as ozone depletion;

(b) Promote exchange of data and information resulting from scientific research and systematic observation and from traditional ecological knowledge and ensure its availability to policy makers and the public at the national level;

(c) Cooperate with a view to the development of standard inter-calibrated procedures, measuring techniques, data storage and management capabilities for scientific research on and systematic observation of the marine environment.

Activities

(a) Management related

17.101 States should consider, inter alia:

(a) Coordinating national and regional observation programmes for coastal and near-shore phenomena related to climate change and for research parameters essential for marine and coastal management in all regions;

(b) Providing improved forecasts of marine conditions for the safety of inhabitants of coastal areas and for the efficiency of maritime operations;

(c) Cooperating with a view to adopt special measures to cope with and adapt to potential climate change and sealevel rise, including the development of globally accepted methodologies for coastal vulnerability assessment, modelling and response strategies particularly for priority areas, such as small islands, low-lying and critical coastal areas;

(d) Identifying ongoing and planned programmes of systematic observation of the marine environment, with a view to integrating activities and establishing priorities to address critical uncertainties for oceans and all seas;

(e) Initiating a programme of research to determine the marine biological effects of increased levels of ultraviolet rays due to the depletion of the stratospheric ozone layer and to evaluate the possible effects.

17.102 Recognizing the important role that oceans and all seas play in attenuating potential climate change, IOC and other relevant competent United Nations agencies, with the support of countries having the resources and expertise, should carry out analysis, assessments and systematic observation of the role of oceans as a carbon sink.

(b) Data and information

17.103 States should consider, inter alia:

(a) Increasing international cooperation particularly with a view to strengthening national scientific and technological capabilities for analyzing, assessing and predicting global climate and environmental change;

(b) Supporting the role of the IOC in cooperation with WMO, UNEP and other international organizations in the collection, analysis and distribution of data and information from the oceans and all seas, including, as appropriate, through the proposed Global Ocean Observing System (GOOS), giving special attention to the need for IOC to develop fully the strategy for providing training and technical assistance for developing countries through its Training, Education, and Mutual Assistance (TEMA) programme.

(c) Creating national multisectoral information bases, covering the results of research and systematic observation programmes;

(d) Linking these databases to existing data and information services and mechanisms such as the World Weather Watch and Earthwatch;

(e) Cooperating with the view to the exchange of data and information and its storage and archiving through the world and regional data centres;

(f) Cooperating to ensure full participation of developing countries, in particular, in any international scheme under the organs and organizations of the United Nations system for the collection, analysis and use of data and information.

(c) International and Regional Cooperation and Coordination

17.104 States should consider bilaterally and multilaterally and in cooperation with international organizations, whether subregional, regional, interregional or global, where appropriate:

(a) Providing technical cooperation in developing the capacity of coastal and island States for marine research and systematic observation, and for using its results;

(b) Strengthening existing national institutions and creating, where necessary, international analysis and prediction mechanisms in order to prepare and exchange regional and global oceanographic analyses and forecasts and to provide facilities for international research and training at national, subregional and regional levels, where applicable.

17.105 In recognition of the value of Antarctica as an area for the conduct of scientific research, in particular essential to understanding the global environment, States carrying out such research activities in Antarctica should, as provided for in Article III of the Antarctic Treaty, continue to:

(a) Ensure that data and information resulting from such research is freely available to the international community; and

(b) Enhance access of the international scientific community and specialized agencies of the United Nations to such data and information including the encouragement of periodic seminars and symposia.

17.106 States should strengthen high-level inter-agency, subregional, regional and global coordination, as appropriate, and review mechanisms to develop and integrate systematic observation networks. This would include:

(a) Review of existing regional and global databases;

(b) Mechanisms to develop comparable and compatible techniques, validate methodologies and measurements, organize regular scientific reviews, options for corrective measures, agree on formats for presentation and storage and communicate the information gathered to potential users;

(c) Systematic observation of coastal habitats and sealevel changes, inventories of marine pollution sources and reviews of fisheries statistics;

(d) Organization of periodic assessments of ocean and all seas and coastal area status and trends.

17.107 International cooperation through relevant organizations within the United Nations system should support countries to develop and integrate regional systematic long-term observation programmes, when applicable, into the Regional Seas Programmes in a coordinated fashion to implement, where appropriate, subregional, regional and global observing systems based on the principle of exchange of data. One aim should be the predicting of the effects of climate-related emergencies on existing coastal physical and socio-economic infrastructure.

17.108 Based on the results of research on the effects of the additional ultraviolet radiation reaching the Earth's surface, in the fields of human health, agriculture and marine environment, States and international organizations should consider taking appropriate remedial measures.

Means of implementation

(a) Financing and cost evaluation

17.109 The UNCED Secretariat has estimated the average total annual cost (1993-2000) of implementing the activities of this programme to be about $750 million including about $480 million from the international community on grant or concessional terms. These are indicative and order of magnitude estimates only and have not been reviewed by governments. Actual costs and financial terms, including any that are non-concessional, will depend upon, inter alia, the specific strategies and programmes governments decide upon for implementation.[4]

17.110 Developed countries should provide the financing for the further development and implementation of the GOOS system.

(b) Scientific and Technological Means

17.111 To address critical uncertainties through systematic coastal and marine observations and research, coastal States should cooperate in the development of procedures which allow for comparable analysis and soundness of data. They should also cooperate on a subregional and regional basis, through existing programmes where applicable, share infrastructure and expensive and sophisticated equipment, develop quality assurance procedures and develop human resources jointly. Special attention should be given to transfer of scientific and technological knowledge and means to support States particularly developing countries in the development of endogenous capabilities.

17.112 International organizations should support, when requested, coastal countries implement research projects on the effects of additional ultraviolet radiation.

(c) Human Resource Development

17.113 States, individually or through bilateral and multilateral cooperation with the support, as appropriate, of international organizations, whether subregional, regional or global, should develop and implement comprehensive programmes, particularly in developing countries for a broad and coherent approach to meeting their core human resource needs in the marine sciences.

(d) Capacity-building

[4] This represents a new estimate by the Secretariat.

17.114 States should strengthen or establish as necessary, national scientific and technological oceanographic commissions or equivalent bodies to develop, support and coordinate marine science activities and work closely with international organizations.

17.115 States should use existing subregional and regional mechanisms, where applicable, to develop knowledge of the marine environment, exchange information, organize systematic observations and assessments, and make most effective use of scientists, facilities and equipment. They should also cooperate in the promotion of endogenous research capabilities in developing countries.

F. Strengthening international, including regional, cooperation and coordination

Basis for action

17.116 It is recognized that the role of international cooperation is to support and supplement national efforts. Implementation of strategies and activities under the programme areas relative to marine and coastal areas and seas require effective institutional arrangements at national, subregional, regional and global levels, as appropriate. There are numerous national and international including regional institutions, both within and outside the United Nations system, with competence in marine issues, and there is a need to improve coordination and strengthen links among them. It is also important to ensure that an integrated and multisectoral approach to marine issues is pursued at all levels.

Objectives

17.117 States commit themselves, in accordance with their policies, priorities and resources, to promote institutional arrangements necessary to support tne implementation of the programme areas in this chapter. To this end, it is necessary, as appropriate, to:

(a) Integrate relevant sectoral activities addressing environment and development in marine and coastal areas at national, subregional, regional and global levels, as appropriate;

(b) Promote effective information exchange and, where appropriate, institutional linkages between bilateral and multilateral national, regional, subregional and interregional institutions dealing with environment and development in marine and coastal areas;

(c) Promote within the United Nations system, regular intergovernmental review and consideration of environment and development issues with respect to marine and coastal areas;

(d) Promote the effective operation of coordinating mechanisms for the components of the United Nations system dealing with issues of environment and development in marine and coastal areas, as well as links with relevant international development bodies.

Activities

(a) Management-related activities

Global

17.118 The General Assembly should provide for regular consideration, within the United Nations system, at the intergovernmental level of general marine and coastal issues, including environment and development matters, and should request the Secretary-General and Executive Heads of United Nations agencies and organizations to:

(a) Strengthen coordination and develop improved arrangements among the relevant United Nations organizations with major marine and coastal responsibilities, including their subregional and regional components;

(b) Strengthen coordination between those organizations and other United Nations organizations, institutions and specialized agencies dealing with development, trade and other related economic issues, as appropriate;

(c) Improve representation of United Nations agencies dealing with the marine environment in United Nations system-wide coordination efforts;

(d) Promote, where necessary, greater collaboration between the United Nations agencies and subregional and regional coastal and marine programmes;

(e) Develop a centralized system to provide for information on legislation and advice on implementation of legal agreements on marine environmental and development issues.

17.119 States recognize that environmental policies should deal with the root causes of environmental degradation, thus preventing environmental measures from resulting in unnecessary restrictions to trade. Trade policy measures for environmental purposes should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade. Unilateral actions to deal with environmental challenges outside the jurisdiction of the importing country should be avoided. Environmental measures addressing international environmental problems should, as far as possible, be based on an international consensus. Domestic measures targeted to achieve certain environmental objectives may need trade measures to render them effective. Should trade policy measures be found necessary for the enforcement of environmental policies, certain principles and rules should apply. These could include, inter alia: the principle of non-discrimination; the principle that the trade measure chosen should be the least trade-restrictive necessary to achieve the objectives; an obligation to ensure transparency in the use of trade measures related to the environment and to provide adequate notification of national regulations; and the need to give consideration to the special conditions and developmental requirements of developing countries as they move towards internationally agreed environmental objectives.

Subregional and regional

17.120 States should consider, as appropriate:

(a) Strengthening, and extending where necessary, intergovernmental regional cooperation, the Regional Seas Programmes of UNEP, regional and subregional fisheries organizations and regional commissions;

(b) Introduce, where necessary, coordination among relevant United Nations and other multilateral organizations at the subregional and regional levels including consideration of co-location of their staff;

(c) Arrange for periodic intraregional consultations;

(d) Facilitate access to and use of expertise and technology through relevant national bodies to subregional and regional centres and networks, such as the Regional Centres for Marine Technology.

(b) Data and information

17.121 States should, where appropriate:

(a) Promote exchange of information on marine and coastal issues;

(b) Strengthen the capacity of international organizations to handle information and support the development of national, subregional and regional data and information systems, where appropriate. This could also include networks linking countries with comparable environmental problems;

(c) Further develop existing international mechanisms such as Earthwatch and GESAMP.

Means of implementation

(a) Financing and cost evaluation

17.122 The UNCED Secretariat has estimated the average total annual cost (1993-2000) of implementing the activities of this programme to be about $50 million from the international community on grant or concessional terms. These are indicative and order of magnitude estimates only and have not been reviewed by governments. Actual costs and financial terms, including any that are non-concessional, will depend upon, inter alia, the specific strategies and programmes governments decide upon for implementation.

(b) Scientific and technological means, human resource development and capacity-building

17.123 The means of implementation outlined in the other programme areas on marine and coastal issues, under the sections on Scientific and technological means, human resource development and capacity-building are entirely relevant for this programme area as well. Additionally, States should, through international cooperation, develop a comprehensive programme for meeting the core human resource needs in marine sciences at all levels.

G. Sustainable development of small islands

Basis for action

17.124 Small island developing States, and islands supporting small communities are a special case both for environment and development. They are ecologically fragile and vulnerable. Their small size, limited resources, geographic dispersion and isolation from markets, disadvantage them economically and prevent economies of scale. For small island developing States the ocean and coastal environment is of strategic importance and constitutes a valuable development resource.

17.125 Their geographic isolation has resulted in their habitation of a comparatively large number of unique species of flora and fauna, giving them a very high share of global biodiversity. They also have rich and diverse cultures with special adaptations to island environments and knowledge of the sound management of island resources.

17.126 Small island developing States have all the environmental problems and challenges of the coastal zone concentrated in a limited land area. They are considered extremely vulnerable to global warming and sealevel rise with certain small low-lying islands facing the increasing threat of the loss of their entire national territories. Most tropical islands are also now experiencing the more immediate impacts of increasing frequency of cyclones, storms and hurricanes associated with climate change. These are causing major set-backs to their socio-economic development.

17.127 Because small island development options are limited, there are special challenges to planning for and implementing sustainable development. Small island developing States will be constrained in meeting these challenges without the cooperation and assistance of the international community.

Objectives

17.128 States commit themselves to addressing the problems of sustainable development of small island developing States. To this end, it is necessary:

(a) To adopt and implement plans and programmes to support the sustainable development and utilization of their marine and coastal resources, including meeting essential human needs, maintaining biodiversity and improving the quality of life for island people;

(b) To adopt measures which will enable small island developing States to cope effectively, creatively and sustainably with environmental change and to mitigate impacts and reduce the threats posed to marine and coastal resources.

Activities

(a) Management-related activities

17.129 Small island developing States, with the assistance as appropriate of the international community and on the basis of existing work of national and international organizations, should:

(a) Study the special environmental and developmental characteristics of small islands including an environmental profile and inventory of their natural resources, critical marine habitats and biodiversity;

(b) Develop techniques for determining and monitoring the carrying capacity of small islands under different development assumptions and resource constraints;

(c) Prepare medium and long-term plans for sustainable development that emphasize multiple use of resources, integrate environmental considerations with economic and sectoral planning and policies, and which define measures for maintaining cultural and biological diversity and conserve endangered species and critical marine habitats;

(d) Adapt coastal area management techniques, such as planning, siting, environmental impact assessments, using geographic information systems (GIS), suitable to the special characteristics of small islands, taking into account the traditional and cultural values of indigenous people of island countries;

(e) Review the existing institutional arrangements and identify and undertake appropriate institutional reforms essential to the effective implementation of sustainable development plans, including intersectoral coordination and community participation in the planning process;

(f) Implement sustainable development plans, including the review and modification of existing unsustainable policies and practices;

(g) Based on precautionary and anticipatory approaches, design and implement rational response strategies to address the environmental, social and economic impacts of climate change and sealevel rise, and prepare appropriate contingency plans;

(h) Promote environmentally sound technology for sustainable development within small island developing States and identify technologies which should be excluded because of their threats to essential island ecosystems.

(b) Data and information

17.130 Additional information on the geographic, environmental, cultural and socio-economic characteristics of islands should be compiled and assessed to assist in the planning process. Existing island databases should be expanded and geographic information systems developed and adapted to suit the special characteristics of islands.

(c) International and regional cooperation and coordination

17.131 Small island developing States, with the support, as appropriate, of international organizations, whether subregional, regional or global, should develop and strengthen inter-island, regional and interregional cooperation and information exchange, including periodic regional and global meetings on sustainable development of small island developing States with the first Global Conference on the sustainable development of small island developing States to be held in 1993.

17.132 International organizations, whether subregional, regional or global, must recognize the special development requirements of small island developing States and give adequate priority in the provision of assistance, particularly with respect to the development and implementation of sustainable development plans.

Means of implementation

(a) Financing and cost evaluation

17.133 The UNCED Secretariat has estimated the average total annual cost (1993-2000) of implementing the activities of this programme to be about $130 million including about $50 million from the international community on grant or concessional terms. These are indicative and order of magnitude estimates only and have not been reviewed by governments. Actual costs and financial terms, including any that are non-concessional, will depend upon, inter alia, the specific strategies and programmes governments decide upon for implementation.

(b) Scientific and technical means

17.134 Centres for the development and diffusion of scientific information and advice on technical means and technologies appropriate to small island developing States, especially with reference to the management of the coastal zone, the exclusive economic zone and marine resources should be established or strengthened as appropriate on a regional basis.

(c) Human resource development

17.135 Since populations of small island developing States cannot maintain all necessary specializations, training for integrated coastal management and development should aim to produce cadres of managers or scientists, engineers and coastal planners able to integrate the many factors which need to be considered in integrated coastal management. Resource users should be prepared to execute both management and protection functions and to apply the polluter pays principle and support the training of their personnel. Educational systems should be modified to meet these needs and special training programmes developed in integrated island management and development. Local planning should be integrated in educational curricula of all levels and public awareness campaigns developed with the assistance of non-governmental organizations and indigenous coastal populations.

(d) Capacity-building

17.136 The total capacity of small island developing States will always be limited. Existing capacity must therefore be restructured to efficiently meet the immediate needs for sustainable development and integrated management. At the same time adequate and appropriate assistance from the international community must be directed at strengthening the full range of human resources needed on a continuous basis to implement sustainable development plans.

17.137 New technologies which can increase the output and range of capability of the limited human resources should be employed to increase the capacity of very small populations to meet their needs. The development and application of traditional knowledge to improve the capacity of countries to implement sustainable development should be fostered.

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